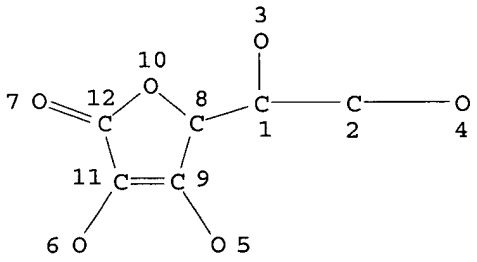
FILE 'HCAPLUS' ENTERED AT 16:09:39 ON 17 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 17 Sep 2004 VOL 141 ISS 13
FILE LAST UPDATED: 16 Sep 2004 (20040916/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que l9
L2 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L3	1041	SEA FILE=REGISTRY FAM FUL L2
L4	42	SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND CA/ELS
L5	114	SEA FILE=HCAPLUS ABB=ON PLU=ON L4(L)(BAC OR DMA OR PAC OR PKT OR THU)/RL
L6	181590	SEA FILE=HCAPLUS ABB=ON PLU=ON ANTITUMOR AGENTS+OLD/CT
L7	7	SEA FILE=HCAPLUS ABB=ON PLU=ON L5 AND L6
L8	10	SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND L6
L9	10	SEA FILE=HCAPLUS ABB=ON PLU=ON L7 OR L8

=> fil medline
FILE 'MEDLINE' ENTERED AT 16:09:55 ON 17 SEP 2004

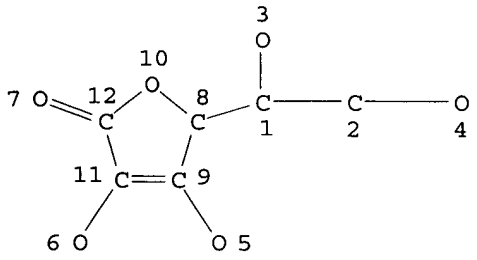
FILE LAST UPDATED: 16 SEP 2004 (20040916/UP). FILE COVERS 1951 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details. OLDMEDLINE now back to 1951.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que l15
L2 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L3 1041 SEA FILE=REGISTRY FAM FUL L2
L4 42 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND CA/ELS
L11 175 SEA FILE=MEDLINE ABB=ON PLU=ON (CA OR CALCIUM)(3A)(ASCORBAT? OR ASCORBIC)
L12 179 SEA FILE=MEDLINE ABB=ON PLU=ON L4 OR L11
L15 16 SEA FILE=MEDLINE ABB=ON PLU=ON L12 AND (ANTITUM? OR ANTINEOPLAS? OR ANTICANC? OR CANCER? OR NEOPLAS? OR TUMOR?)

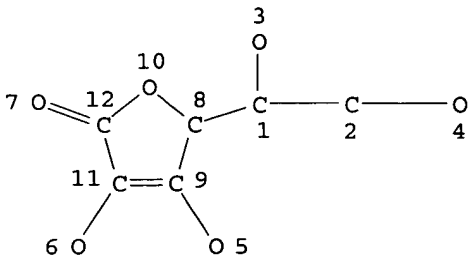
=> fil embase
FILE 'EMBASE' ENTERED AT 16:10:07 ON 17 SEP 2004

FILE COVERS 1974 TO 16 Sep 2004 (20040916/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que l20
L2 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L3 1041 SEA FILE=REGISTRY FAM FUL L2
L4 42 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND CA/ELS
L16 23 SEA FILE=EMBASE ABB=ON PLU=ON CALCIUM ASCORBATE?/CT
L17 156 SEA FILE=EMBASE ABB=ON PLU=ON L16 OR L4 OR (CA OR CALCIUM)(2A)(ASCORBAT? OR ASCORBIC?)
L20 14 SEA FILE=EMBASE ABB=ON PLU=ON L17 AND (ANTINEOPLAS? OR ANTITUM? OR ANTICANCER? OR CANCER? OR NEOPLAS? OR TUMOR?)

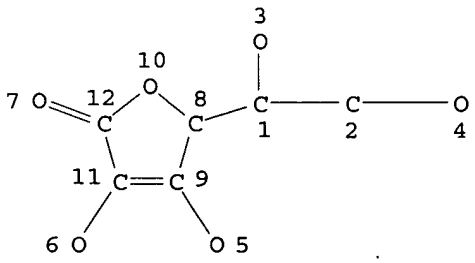
=> fil biosis
FILE 'BIOSIS' ENTERED AT 16:10:23 ON 17 SEP 2004
Copyright (c) 2004 The Thomson Corporation.

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 15 September 2004 (20040915/ED)

FILE RELOADED: 19 October 2003.

=> d que l23
L2 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  12

STEREO ATTRIBUTES: NONE
L3          1041 SEA FILE=REGISTRY FAM FUL L2
L4            42 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3 AND CA/ELS
L21           89 SEA FILE=BIOSIS ABB=ON  PLU=ON  L4
L22          339 SEA FILE=BIOSIS ABB=ON  PLU=ON  L21 OR (CA OR CALCIUM)(2A)(ASCO
                 RBAT? OR ASCORBIC?)
L23           19 SEA FILE=BIOSIS ABB=ON  PLU=ON  L22 AND (ANTINEOPLAS? OR
                 ANTITUM? OR ANTICANCER? OR CANCER? OR NEOPLAS? OR TUMOR?)


=> fil wpix
FILE 'WPIX' ENTERED AT 16:10:30 ON 17 SEP 2004
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE LAST UPDATED:          15 SEP 2004      <20040915/UP>
MOST RECENT DERWENT UPDATE:     200459        <200459/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/           <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/               <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv  <<<

>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF
    HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT  <<<

=> d que l24
L24           12 SEA FILE=WPIX ABB=ON  PLU=ON  (CA OR CALCIUM)(2A)(ASCORBIC OR
                 ASCORBAT?) AND(ANTINEOPLAS? OR ANTITUM? OR ANTICANCER? OR
                 CANCER? OR NEOPLAS? OR TUMOR? OR TUMOUR?)


=> dup rem l9 l15 l20 l23 l24
FILE 'HCAPLUS' ENTERED AT 16:11:08 ON 17 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'MEDLINE' ENTERED AT 16:11:08 ON 17 SEP 2004

FILE 'EMBASE' ENTERED AT 16:11:08 ON 17 SEP 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'BIOSIS' ENTERED AT 16:11:08 ON 17 SEP 2004
Copyright (c) 2004 The Thomson Corporation.
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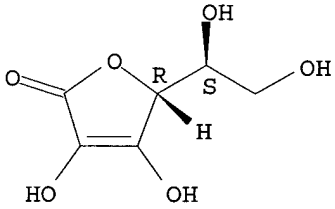
```
FILE 'WPIX' ENTERED AT 16:11:08 ON 17 SEP 2004
COPYRIGHT (C) 2004 THOMSON DERWENT
PROCESSING COMPLETED FOR L9
PROCESSING COMPLETED FOR L15
PROCESSING COMPLETED FOR L20
PROCESSING COMPLETED FOR L23
PROCESSING COMPLETED FOR L24
L25          45 DUP REM L9 L15 L20 L23 L24 (26 DUPLICATES REMOVED)
                ANSWERS '1-10' FROM FILE HCAPLUS
                ANSWERS '11-24' FROM FILE MEDLINE
                ANSWERS '25-27' FROM FILE EMBASE
                ANSWERS '28-36' FROM FILE BIOSIS
                ANSWERS '37-45' FROM FILE WPIX

=> d l25 ibib ab hitind hitstr 1-10

L25  ANSWER 1 OF 45  HCAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2003:551366  HCAPLUS
DOCUMENT NUMBER:          139:106485
TITLE:                    A nutrient pharmaceutical formulation comprising
                          polyphenols and use in treatment of cancer
INVENTOR(S):              Rath, Matthias; Netke, Shrirang; Niedzwiecki,
                          Aleksandra
PATENT ASSIGNEE(S):       Neth.
SOURCE:                   PCT Int. Appl., 39 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     WO 2003057201         A2    20030717    WO 2003-EP236            20030113
     WO 2003057201         A3    20040311
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     US 2003170319         A1    20030911    US 2003-342044           20030113
     BR 2003002672         A     20040225    BR 2003-2672             20030113
     EE 200400032          A     20040415    EE 2004-32               20030113
     NO 2003003950         A     20031110    NO 2003-3950             20030905
PRIORITY APPLN. INFO.:                       US 2002-348143P     P    20020111
                                             WO 2003-EP236       W    20030113
AB   A nutrient pharmaceutical formulation composition comprising ascorbic acid,
     L-lysine, L-proline and at least one polyphenol compound selected from the
     group consisting of epigallocatechin gallate, epicatechin gallate,
     epigallocatechin, epicatechin, catechin and use of treatment in cancer and
     other tumors is provided.  The effects of ascorbic acid, lysine, proline,
     and epigallochatechin gallate were studied for their anti-proliferative
     and anti-invasive potential in various human cancer cell lines.  Nutrient
```

pharmaceutical formulation composition of Epican Forte and its method of use in preventing and treating cancer are disclosed.

IC ICM A61K031-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT Anti-inflammatory agents
Antitumor agents
Cytotoxic agents
Human
Nutrients
(nutrient pharmaceutical formulation comprising polyphenols and use in treatment of cancer)
IT 50-81-7, Ascorbic acid, biological studies 50-81-7D, Ascorbic acid, salts and esters 56-87-1, L-Lysine, biological studies 74-79-3, Arginine, biological studies 137-66-6, Ascorbyl palmitate 147-85-3, L-Proline, biological studies 154-23-4, Catechin 490-46-0, Epicatechin 616-91-1, N-AcetylCysteine 657-27-2, Lysine hydrochloride 970-74-1, Epigallocatechin 989-51-5, Epigallocatechin gallate 1257-08-5, Epicatechin gallate **5743-27-1**, Calcium ascorbate 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-50-8, Copper, biological studies 7440-70-2, Calcium, biological studies 7776-34-3, Proline hydrochloride 7782-49-2, Selenium, biological studies 15431-40-0, Magnesium ascorbate
RL: FFD (Food or feed use); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nutrient pharmaceutical formulation comprising polyphenols and use in treatment of cancer)
IT **5743-27-1**, Calcium ascorbate
RL: FFD (Food or feed use); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nutrient pharmaceutical formulation comprising polyphenols and use in treatment of cancer)
RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L25 ANSWER 2 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:184910 HCAPLUS
DOCUMENT NUMBER: 136:226782
TITLE: Methods and compositions for potentiating cancer chemotherapeutic agents using vitamin C derivatives
INVENTOR(S): Jariwalla, Raxit J.
PATENT ASSIGNEE(S): Oxycal Laboratories, Inc., USA

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020023	A1	20020314	WO 2001-US26455	20010824
W: AU, CA, CN, IS, JP, KR, MX, NO, NZ, SG, TR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 6468980	B1	20021022	US 2000-654377	20000901
AU 2001085254	A5	20020322	AU 2001-85254	20010824
EP 1286674	A1	20030305	EP 2001-964398	20010824
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
TR 200201192	T1	20030521	TR 2002-200201192	20010824
JP 2004508335	T2	20040318	JP 2002-524507	20010824
PRIORITY APPLN. INFO.:			US 2000-654377 A	20000901
			WO 2001-US26455 W	20010824

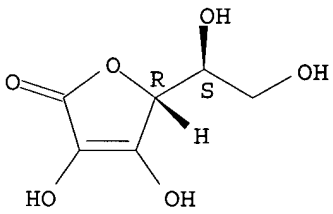
AB The effect of cancer chemotherapeutic agents is potentiated by combination with mineral ascorbates, Vitamin C metabolites and/or a Vitamin C-derived furanone, illustratively a 4-hydroxy-5-methyl-3(2H)-furanone. Thus, ascorbate-containing compns. improve the antineoplastic activity of adriamycin against both hepatoma and melanoma-derived cell lines. The enhancing effect is most prominent at low to moderate doses of the chemotherapeutic drug. Compns. containing ascorbate plus metabolites are more effective in enhancing adriamycin activity than ascorbate alone. Triple mixts. containing calcium ascorbate, calcium threonate and furanone (at ratio of 85:7.5:7.5) when combined with low-dose adriamycin suppress tumor cell proliferation at a level similar to or slightly better than a 10-fold higher dose or adriamycin alone. These results indicate the use of ascorbate plus metabolites in combination with low-dose chemotherapy with reduction of potential drug-associated toxicity.

IC A61K031-70
CC 1-6 (Pharmacology)
Section cross-reference(s): 63
IT **Antitumor agents**
(colon carcinoma; vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)
IT **Antitumor agents**
(hepatoma; vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)
IT **Antitumor agents**
(melanoma; vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)
IT **Antitumor agents**
Cell death
Drug delivery systems
Human
(vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)
IT 50-81-7D, Vitamin C, metabolites and salts **5743-27-1**, Calcium ascorbate 19322-27-1, 4-Hydroxy-5-methyl-3(2H)-furanone 23214-92-8, Doxorubicin 25316-40-9, Adriamycin 86768-54-9 111645-48-8, Ester C
RL: MOA (Modifier or additive use); **PAC (Pharmacological activity)** ; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)

IT **5743-27-1**, Calcium ascorbate
RL: MOA (Modifier or additive use); **PAC (Pharmacological activity)** ; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(vitamin C derivs. for potentiating activity of cancer chemotherapeutic agents)
RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 3 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2002:272794 HCAPLUS
DOCUMENT NUMBER: 136:299725
TITLE: Therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer
INVENTOR(S): Rath, Matthias
PATENT ASSIGNEE(S): Neth.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1195159	A1	20020410	EP 2000-121950	20001009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200100124	A2	20020821	TR 2001-200100124	20010117
PRIORITY APPLN. INFO.:			EP 2000-121950 A	20001009

AB A therapeutic composition for the prevention and treatment of different forms of cancer in very elevated dosages of ascorbic acid and salts, L-Lysine and L-proline, vitamins and trace elements.
IC ICM A61K031-195
ICS A61K031-375; A61P035-00
ICI A61K031-195, A61K031-375
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT **Antitumor agents**

(cervix; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(duodenum; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(esophagus; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(lung; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(mammary gland; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(melanoma; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(ovary; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(skin; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(small intestine; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **Antitumor agents**
(stomach; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

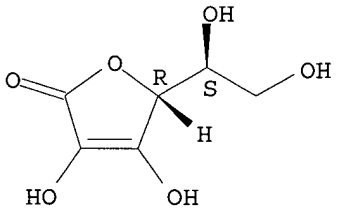
IT **Antitumor agents**
(testis; therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT 50-81-7, Ascorbic acid, biological studies 56-40-6D, Glycine, chromium and molybdenum complexes 56-87-1, L-Lysine, biological studies 58-56-0, Pyridoxine hydrochloride 58-85-5, Biotin 59-02-9, D-.α.-Tocopherol 59-30-3, Folic acid, biological studies 59-67-6, Niacin, biological studies 67-03-8, Thiamine hydrochloride 67-97-0, Cholecalciferol 68-19-9, Cyanocobalamin 83-88-5, Riboflavin, biological studies 87-89-8, Inositol 98-92-0, Niacinamide 119-13-1, δ-Tocopherol 127-40-2, Lutein 137-08-6 137-66-6, Ascorbyl Palmitate 147-85-3, L-Proline, biological studies 148-03-8, β-Tocopherol 303-98-0, Coenzyme Q10 432-70-2, α-Carotene 472-70-8, Kryptoxanthin 541-15-1, L-Carnitine 657-27-2, L-Lysine hydrochloride 1119-34-2, L-Arginine hydrochloride 3211-76-5, L-Selenomethionine **5743-27-1**, Calcium Ascorbate 7048-04-6, L-Cysteine hydrochloride monohydrate 7235-40-7, β-Carotene 7439-96-5D, Manganese, chelates 7439-98-7D, Molybdenum, glycinate complexes 7440-09-7, Potassium, biological studies 7440-47-3D, Chromium, glycinate complexes 7616-22-0, γ-Tocopherol 7693-13-2, Calcium citrate 7757-93-9, Dicalcium Phosphate 7779-25-1, Magnesium citrate 13479-54-4, Copper glycinate 14281-83-5, Zinc glycinate 14451-00-4, Iron fumarate 14783-68-7 15431-40-0, Magnesium Ascorbate 35947-07-0, Calcium glycinate 174882-69-0, Pycnogenol
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)

IT **5743-27-1**, Calcium Ascorbate
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic**

use); BIOL (Biological study); USES (Uses)
(therapeutic combination of ascorbate with lysine or arginine for prevention and treatment of cancer)
RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 4 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1996:267742 HCAPLUS
DOCUMENT NUMBER: 124:332200
TITLE: Inhibition of hepatocellular carcinoma development and erythrocyte polyamine levels in ODS rats fed on 3'-methyl-4-dimethylaminoazobenzene by hemicalcium ascorbate, 2-O-octadecylascorbic acid, and ascorbyl palmitate
AUTHOR(S): Shimpo, Kan; Takahashi, Hisahide; Tsuda, Hiroyuki; Hibino, Tsutomu; Kawai, Kaoru; Kimura, Chiharu; Nagatsu, Toshiharu; Fujita, Keisuke
CORPORATE SOURCE: School of Medicine, Fujita Health University, Toyoake, 470-11, Japan
SOURCE: Cancer Detection and Prevention (1996), 20(2), 137-45
CODEN: CDPRD4; ISSN: 0361-090X
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We examined the modifying effect of hemicalcium ascorbate (Ca-Asc), and its lipophilic derivs., 2-O-octadecylascorbic acid (CV-3611) and ascorbyl palmitate (AscP), on hepatocarcinogenesis by 3'-methyl-4-dimethylaminoazobenzene (3'-Me-DAB) in ODS rats (a mutant unable to synthesize ascorbic acid). Male 14-wk-old ODS rats were given a modified AIN-A diet or the diet containing 0.06% 3'-Me-DAB, and drinking water containing
0.1% ascorbic acid. Rats were divided into the following eight groups: Group 1, no treatment (basal diet alone); Group 2, Ca-Asc; Group 3, CV-3611; Group 4, AscP; Group 5, 3'-Me-DAB; Group 6, 3'-Me-DAB + Ca-Asc; Group 7, 3'-Me-DAB + CV-3611; and Group 8, 3'-Me-DAB + AscP. Ca-Asc (2 g/kg), CV-3611 (0.2 g/kg), and AscP (0.6 g/kg) was administered once every day by gavage. 3'-Me-DAB was given in the basal diet. After 17 wk, animals were killed by exsanguination, and the liver was weighed and processed for histol. examination Treatment by CV-3611 exerted a marked inhibitory effect on the development of 3'-Me-DAB-induced hepatocellular

carcinomas (HCC) as measured by multiplicity. Although less effective than CV-3611, Ca-Asc and AscP also showed inhibitory effect. We have also studied the correlation of erythrocyte (RBC) polyamine levels and HCC development. RBC polyamine levels were inhibited by Ca-Asc and its derivs., indicating it may be a marker of hepatocarcinogenesis.

CC 1-6 (Pharmacology)

IT **Neoplasm inhibitors**
(hepatoma, inhibition of hepatocellular carcinoma by hemicalcium ascorbate, 2-O-octadecylascorbic acid, and ascorbyl palmitate)

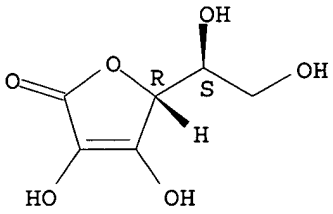
IT 137-66-6, Ascorbyl palmitate **5743-27-1**, Hemicalcium ascorbate 98829-12-0, 2-O-Octadecylascorbic acid
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(inhibition of hepatocellular carcinoma by hemicalcium ascorbate, 2-O-octadecylascorbic acid, and ascorbyl palmitate)

IT **5743-27-1**, Hemicalcium ascorbate
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(inhibition of hepatocellular carcinoma by hemicalcium ascorbate, 2-O-octadecylascorbic acid, and ascorbyl palmitate)

RN 5743-27-1 HCAPLUS

CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L25 ANSWER 5 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 15

ACCESSION NUMBER: 1983:159445 HCAPLUS

DOCUMENT NUMBER: 98:159445

TITLE: Inhibition of transplantable melanoma tumor development in mice by prophylactic administration of calcium ascorbate

AUTHOR(S): Varga, Janos M.; Airoldi, Luisa

CORPORATE SOURCE: Sch. Med., Yale Univ., New Haven, CT, 06510, USA

SOURCE: Life Sciences (1983), 32(14), 1559-64
CODEN: LIFSAK; ISSN: 0024-3205

DOCUMENT TYPE: Journal

LANGUAGE: English

AB hemicalcium ascorbate (I) [**5743-27-1**], 51 mM, 1% weight/volume, added to the drinking water, had the following effects in DBA/2 mice inoculated with 105 S91 (Cloudman) melanoma cells. It delayed the appearance of visible tumors by 2-4 wk. It increased the survival rate at 3 mo after tumor challenge by 12-50%. It had no significant effect on the

rate of tumor growth once the size of the tumors had reached 10 mm3. The inhibition was maximal when the treatment with I was started ≥1 wk prior to the inoculation of cells. When free ascorbic acid was used instead of I, the animals consumed 50% less water, they became dehydrated, and the treatment was less effective. Ca2+ (51 mM) alone had no significant inhibitory effect. Since I (1 mM) was not toxic to S91 melanoma cells in vitro, prophylactic treatment of the animals with I probably inhibited tumor development by increasing the resistance of the host.

CC 18-2 (Animal Nutrition)
Section cross-reference(s): 1

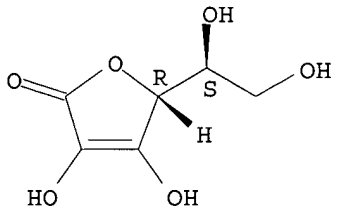
IT **Neoplasm inhibitors**
(calcium ascorbate as, for melanoma)

IT **5743-27-1**
RL: BIOL (Biological study)
(melanoma development inhibition by dietary)

IT **5743-27-1**
RL: BIOL (Biological study)
(melanoma development inhibition by dietary)

RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L25 ANSWER 6 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:681305 HCAPLUS
DOCUMENT NUMBER: 141:212744
TITLE: PSMA formulations and uses in human prostate cancer therapy
INVENTOR(S): Maddon, Paul J.; Donovan, Gerald P.; Olson, William C.; Schulke, Norbert; Gardner, Jason; Ma, Dangshe
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 159 pp., Cont.-in-part of U.S. Pat. Appl. 2004 33,229.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004161776	A1	20040819	US 2003-695667	20031027
WO 2003034903	A2	20030501	WO 2002-US33944	20021023

WO 2003034903 A3 20031030
WO 2003034903 B1 20040513
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2004033229 A1 20040219 US 2003-395894 20030321
PRIORITY APPLN. INFO.: US 2001-335215P P 20011023
US 2002-362747P P 20020307
US 2002-412618P P 20020920
WO 2002-US33944 A2 20021023
US 2003-395894 A2 20030321

AB The invention includes stable multimeric, particularly dimeric, forms of PSMA (prostate specific membrane antigen) protein, compns. and kits containing dimeric PSMA protein as well as methods of producing, purifying and using these compns in prostate cancer therapy. Such methods include methods for eliciting or enhancing an immune response to cells expressing PSMA, including methods of producing antibodies to dimeric PSMA, as well as methods of treating cancer, such as prostate cancer.

IC ICM C12Q001-68
ICS G01N033-574; C07H021-04; C07K014-705
NCL 435006000; 435007230; 435069100; 435320100; 435325000; 530350000; 536023500
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 15

IT Antioxidants
Antitumor agents
Buffers
Cryoprotectants
Human
Immunostimulants
Preservatives
Protein sequences
Surfactants
(PSMA formulations and uses in human prostate cancer therapy)

IT 50-21-5, Lactic acid, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, Ascorbic acid, biological studies 50-81-7D, Ascorbic acid, derivative 50-99-7, Glucose, biological studies 51-35-4, 4-Hydroxyproline. 54-64-8, Thimerosal 56-12-2, γ-Aminobutyric acid, biological studies 56-14-4, Succinate., biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-81-5, Glycerol, biological studies 57-15-8, Chlorobutanol 57-50-1, Sucrose, biological studies 58-95-7, D-α-Tocopherol acetate 59-02-9, D-α-Tocopherol 61-90-5, Leucine, biological studies 63-42-3, Lactose 64-17-5, Ethanol, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 67-68-5, Dimethylsulfoxide, biological studies 68-04-2, Sodium citrate 69-65-8, Mannitol 69-79-4, Maltose 71-00-1, Histidine, biological studies 71-50-1D, Acetate, salt 72-17-3, Sodium lactate 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 77-92-9, Citric acid, biological studies 79-09-4D, Propionic acid, salts 81-25-4, Cholic acid 87-69-4, Tartaric acid, biological studies 87-89-8, Inositol 87-99-0, Xylitol 99-20-7,

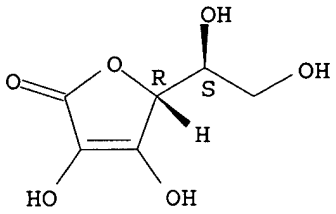
Trehalose 100-51-6, Benzyl alcohol, biological studies 107-21-1, Ethylene glycol, biological studies 107-41-5, 2-Methyl-2,4-pentane-diol 107-43-7, Betaine 107-95-9, β-Alanine 107-97-1, Sarcosine 108-95-2, Phenol., biological studies 110-15-6, Butanedioic acid, biological studies 110-16-7, Maleic acid, biological studies 113-21-3, Lactate, biological studies 119-13-1, δ Tocopherol 127-09-3, Sodium acetate 128-37-0, Butylated hydroxy toluene, biological studies 134-03-2, Sodium ascorbate 137-66-6, Ascorbylpalmitate 142-47-2, Sodium glutamate 144-55-8, Sodium bicarbonate, biological studies 147-85-3, Proline, biological studies 148-03-8, β-Tocopherol 149-44-0, Sodium formaldehyde sulfoxylate 149-91-7D, Gallic acid, alkyl derivs. 150-90-3, Sodium succinate 288-32-4, Imidazole, biological studies 367-51-1, Sodium thioglycolate 463-79-6, Carbonic acid, biological studies 532-32-1, Sodium benzoate 657-27-2, Lysine hydrochloride 994-36-5, Sodium citrate 1184-78-7, Trimethylamine N-oxide 1406-18-4, Vitamin E 1984-06-1, Sodium caprylate 3483-12-3, Dithiothreitol 4345-03-3 **5743-27-1**, Calcium ascorbate 7439-95-4D, Magnesium, salt 7440-09-7D, Potassium, salt 7440-23-5D, Sodium, salt 7440-66-6D, Zinc, salt 7440-70-2D, Calcium, salt 7487-88-9, Magnesium sulfate, biological studies 7601-54-9, Sodium phosphate 7616-22-0, γ Tocopherol 7631-90-5, Sodium bisulfite 7632-05-5, Sodium phosphate 7647-14-5, Sodium chloride, biological studies 7664-38-2, Phosphoric acid, biological studies 7681-49-4, Sodium fluoride., biological studies 7681-57-4, Sodium meta-bisulfite 7757-82-6, Sodium sulfate, biological studies 7757-83-7, Sodium sulfite 7775-14-6, Sodium dithionite 7778-53-2, Potassium phosphate 7783-20-2, Ammonium sulfate, biological studies 9002-93-1, Triton X-100 9002-96-4, D-α-Tocopherol polyethylene glycol 1000 succinate 9003-39-8, Polyvinylpyrrolidone 9004-54-0, Dextran, biological studies 9005-64-5, Tween20 9005-65-6, Tween80 10043-01-3, Alum 10043-67-1, Alum 10098-89-2, Lysine hydrochloride 14047-56-4 14798-03-9D, Ammonium, salt 14808-79-8D, Sulfate, salt 16068-46-5, Potassium phosphate 16177-21-2, Sodium glutamate 16887-00-6D, Chloride, salt 18996-35-5, Sodium citrate 22834-80-6, Lysine hydrochloride 25013-16-5, Butylated hydroxy anisole 25322-68-3, Polyethylene glycol 25395-66-8, Ascorbylstearate 34522-32-2, Octopine 38098-46-3, Monothioglycerol 52225-20-4, dl-α Tocopherol acetate 55353-40-7, MPL 56857-47-7, Strombine 66594-14-7, Quil A 69227-93-6 73890-66-1, Alanopine 75621-03-3, CHAPS 209533-83-5, α-Galactosylceramide
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(PSMA formulations and uses in human prostate cancer therapy)

IT **5743-27-1**, Calcium ascorbate
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(PSMA formulations and uses in human prostate cancer therapy)

RN 5743-27-1 HCAPLUS

CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L25 ANSWER 7 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:167803 HCAPLUS
DOCUMENT NUMBER: 134:202686
TITLE: Methods and compositions for selective cancer chemotherapy using a mineral ascorbate and a vitamin C metabolite
INVENTOR(S): Jariwalla, Raxit J.
PATENT ASSIGNEE(S): Oxycal Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001015692	A1	20010308	WO 1999-US19449	19990830
W: AU, CA, CN, IS, JP, KP, MX, NO, NZ, SG, TR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1124550	A1	20010822	EP 1999-945197	19990830
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003508437	T2	20030304	JP 2001-519906	19990830
NZ 511396	A	20030829	NZ 1999-511396	19990830
NO 2001002027	A	20010620	NO 2001-2027	20010425
US 2004092549	A1	20040513	US 2001-830912	20010430
PRIORITY APPLN. INFO.:			WO 1999-US19449 W	19990830

AB A selective chemotherapy method includes contacting tumor cells with a mineral ascorbate/vitamin C metabolite composition A chemotherapeutic composition comprises the mineral ascorbate/vitamin C metabolite composition in a pharmacol. acceptable i.v. carrier.
IC ICM A61K031-34
CC 1-6 (Pharmacology)
Section cross-reference(s): 63
IT **Antitumor agents**
(colon carcinoma; mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)
IT **Antitumor agents**
(hepatoma; mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)
IT **Antitumor agents**

(melanoma; mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)

IT **Antitumor agents**
Apoptosis
Drug interactions
(mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)

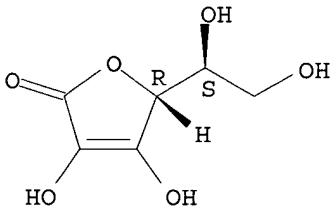
IT **Antitumor agents**
(neuroblastoma; mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)

IT 50-81-7D, Ascorbic acid, metabolites and metal salts 490-83-5, Dehydroascorbic acid 1073-96-7, 5-Hydroxymaltol 1758-51-6, Erythrose 2308-51-2, 3-Hydroxykojic acid **5743-27-1**, Calcium ascorbate 19322-27-1, 4-Hydroxy-5-methyl-3(2H)-furanone 29884-64-8, Threose 70753-61-6 111645-48-8, Ester-C
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)

IT **5743-27-1**, Calcium ascorbate
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(mineral ascorbate/vitamin C metabolite composition and method for selective cancer chemotherapy)

RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



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REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 8 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:546795 HCAPLUS
DOCUMENT NUMBER: 111:146795
TITLE: Pharmaceuticals containing ascorbates for the treatment of skin cancers, basal all carcinoma, and hyperkeratoses
INVENTOR(S): Hamilton, Donald Sinclair
PATENT ASSIGNEE(S): S. Afr.
SOURCE: S. African, 10 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent

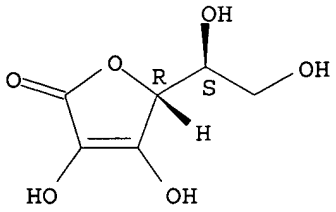
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 8801828	A	19881130	ZA 1988-1828	19880315
AU 8813063	A1	19880915	AU 1988-13063	19880311
AU 610136	B2	19910516		
PRIORITY APPLN. INFO.:			NZ 1987-219636	19870316

AB A preparation for the treatment of the skin cancers, basal cell carcinoma, and hyperkeratoses comprises ≥1 substances selected from ascorbic acid and its salts. A patient suffering from basal cell carcinoma in the lips, cheeks, forehead, and ears, hyperkeratoses on the arms and hands was treated with a composition containing 30% ascorbic acid in petroleum jelly 2-3 times daily and the cancerous areas on lips, cheeks, forehead, and ears, cleared after 3-mo treatment and the hyperkeratoses cleared up at the same time. The treatment of a cat and a horse afflicted with basal cell carcinoma is also described.

IC ICM A61K
CC 1-5 (Pharmacology)
Section cross-reference(s): 63
IT **Neoplasm inhibitors**
(ascorbates as)
IT **Neoplasm inhibitors**
(carcinoma, ascorbates as)
IT 50-81-7, Ascorbic acid, biological studies **5743-27-1**, Calcium ascorbate
RL: BIOL (Biological study)
(antineoplastic pharmaceuticals containing, for treatment of basal cell carcinoma and skin cancer and hyperkeratosis)
IT **5743-27-1**, Calcium ascorbate
RL: BIOL (Biological study)
(antineoplastic pharmaceuticals containing, for treatment of basal cell carcinoma and skin cancer and hyperkeratosis)
RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

L25 ANSWER 9 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:551243 HCAPLUS
DOCUMENT NUMBER: 91:151243
TITLE: Inhibiting effect of vitamins C and B12 on the mitotic

activity of ascites tumors
AUTHOR(S): Poydock, M. Eymard; Fardon, J. C.; Gallina, D.; Ferro, V.; Heher, C.
CORPORATE SOURCE: Mercyhurst Coll., Erie, PA, USA
SOURCE: Experimental Cell Biology (1979), 47(3), 210-17
CODEN: ECEBDI; ISSN: 0304-3568
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The mitotic activity of the transplantable mouse tumors, Sarcoma 37, Krebs-2, and Ehrlich carcinomas, in the ascites form, were inhibited after treatment with Vitamin B12-L-ascorbic acid- Ca ascorbate mixture [**71553-08-7**], with no apparent toxic side effects. These vitamins when administered alone, at the same dosage, did not seem to have any apparent effect on mitosis or the morphol. of the cells studied. Microscopic examns. of the stained ascites fluid taken from the mice treated with the vitamin mixture showed few tumor cells, and these in various stages of disintegration. Also, an increase in lymphocytes, monocytes and neutrophils were noticed; however, later in the experiment, no tumor cells could be found and monocytes and macrophages were abundant.

CC 1-5 (Pharmacodynamics)

IT **Neoplasm inhibitors**
(ascorbic acid-calcium ascorbate-vitamin B12 mixture)

IT **71553-08-7**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(antimitotic activity of, in ascites tumor)

IT **71553-08-7**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(antimitotic activity of, in ascites tumor)

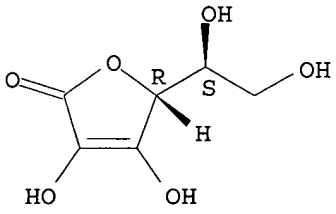
RN 71553-08-7 HCAPLUS

CN L-Ascorbic acid, calcium salt (2:1), mixt. with vitamin B12 (9CI) (CA INDEX NAME)

CM 1

CRN 5743-27-1
CMF C6 H8 O6 . 1/2 Ca

Absolute stereochemistry.



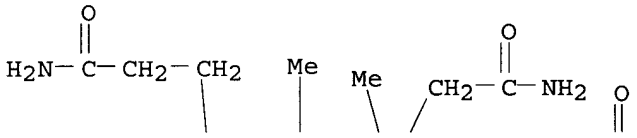
●1/2 Ca

CM 2

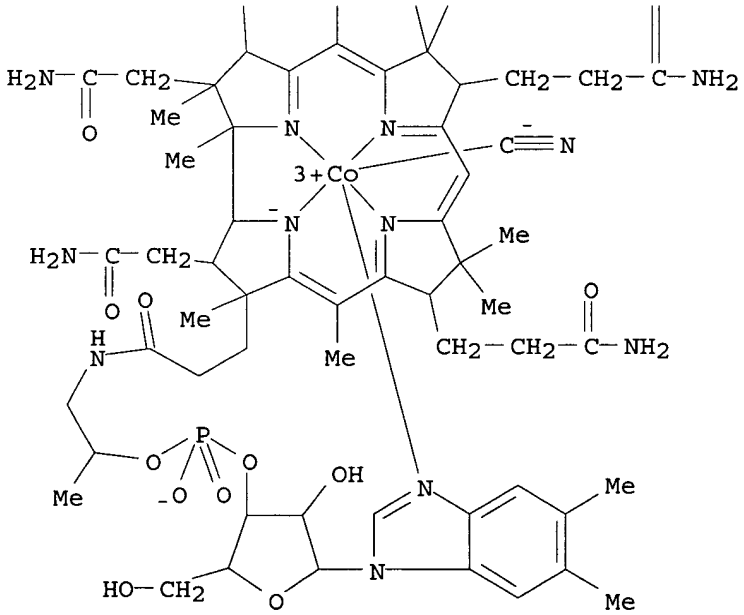
CRN 68-19-9

CMF C63 H88 Co N14 O14 P
CCI CCS

PAGE 1-A



PAGE 2-A



L25 ANSWER 10 OF 45 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:202547 HCAPLUS
DOCUMENT NUMBER: 90:202547
TITLE: The influence of nutritional factors on pulmonary adenomas in mice
AUTHOR(S): French, Frederic A.
CORPORATE SOURCE: Med. Cent., Mount Zion Hosp., San Francisco, CA, USA
SOURCE: Advances in Experimental Medicine and Biology (1978), 91(Inorg. Nutr. Aspects Cancer), 281-92
CODEN: AEMBAP; ISSN: 0065-2598
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Urethane-induced pulmonary adenomas in mice could be reduced in number by dietary nicotinamide [98-92-0] (0.25 or 0.4% in drinking H2O; average reduction in adenomas 42.6%), choline dihydrogen citrate [77-91-8] (2.5%) choline bitartrate [87-67-2] (2.5%), and myo-inositol [87-89-8] (0.25 and 4.0%). Other materials tested, but found ineffective were: Ca pantothenate [137-08-6] (0.02%), pyridoxine hydrochloride [58-56-0] (0.05%), chromium (III) hexaurea chloride [14023-01-9] (0.033%), ascorbic acid [50-81-7] (0.5% of drinking water), nicotinic acid [59-67-6] (0.25% of drinking water), Na ascorbate [134-03-2] (2% of diet), Ca ascorbate [**5743-27-1**] (1, 2, and 4% of diet), thiamin hydrochloride [67-03-8] (0.05%), riboflavin [83-88-5] (0.05%), p-aminobenzoic acid [150-13-0] (0.25%), cod liver oil (1%), mixed tocopherols 0.24%, (NH4)H2PO4 [7722-76-1] (3.4%), D-glucuronolactone [32449-92-6] (0.5%), betaine [107-43-7] (1.5%), methionine [63-68-3] (1% of diet), cyanocobalamin [68-19-9] (7 mg/kg, i.p. once/wk), and Na2Ca-EDTA [62-33-9] (250 mg/kg, i.p. once/day). There was a higher incidence of tumors also with a casein-based synthetic diet than with a natural chow diet.

CC 18-2 (Animal Nutrition)

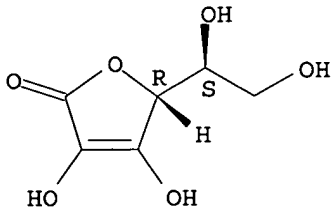
IT **Neoplasm inhibitors**
(vitamins as)

IT 50-81-7, biological studies 58-56-0 59-67-6, biological studies 62-33-9 63-68-3, biological studies 67-03-8 68-19-9 77-91-8 83-88-5, biological studies 87-67-2 87-89-8 98-92-0 107-43-7 134-03-2 137-08-6 150-13-0 **5743-27-1** 7722-76-1 14023-01-9 32449-92-6
RL: BIOL (Biological study)
(lung adenoma inhibition with dietary)

IT **5743-27-1**
RL: BIOL (Biological study)
(lung adenoma inhibition with dietary)

RN 5743-27-1 HCAPLUS
CN L-Ascorbic acid, calcium salt (2:1) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



●1/2 Ca

=> d bib ab 11-45

L25 ANSWER 11 OF 45 MEDLINE on STN DUPLICATE 4
AN 2001209836 MEDLINE
DN PubMed ID: 11299082
TI Dietary patterns and their association with food and nutrient intake in the European Prospective Investigation into **Cancer** and Nutrition (EPIC)-Potsdam study.
CM Erratum in: Br J Nutr 2002 Mar;87(3):279
AU Schulze M B; Hoffmann K; Kroke A; Boeing H
CS Department of Epidemiology, German Institute of Human Nutrition, Potsdam-Rehbruecke, Arthur-Scheunert-Allee 114-116, 14558 Bergholz-Rehbruecke, Germany.. mschulze@www.dife.de
SO British journal of nutrition, (2001 Mar) 85 (3) 363-73. Journal code: 0372547. ISSN: 0007-1145.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE) (MULTICENTER STUDY)
LA English
FS Priority Journals
EM 200104
ED Entered STN: 20010502
Last Updated on STN: 20020627
Entered Medline: 20010426
AB Dietary pattern analysis has recently received growing attention, as it might be more appropriate in studies of diet-disease associations than the single food or nutrient approach that has dominated past epidemiological research. Factor analysis is a technique which is commonly used to identify dietary patterns within study populations. However, the ability of factor solutions to account for variance of food and nutrient intake has so far remained unclear. The present study therefore explored the statistical properties of dietary patterns with regard to the explained variance. Food intake of 8975 men and 13 379 women, assessed by a food-frequency questionnaire, was aggregated into forty-seven separate food groups. Dietary patterns were identified by principal component analysis and subsequent varimax rotation. Seven factors were retained for both men and women, which accounted for about 31 % of the total variance. The explained variance was relatively high (>40 %) for cooked vegetables, sauce, meat, dessert, cake, bread other than wholemeal, raw vegetables, processed meat, high-fat cheese, butter and margarine. Factor scores were used to investigate associations between the factors and nutrient intake. The patterns accounted for relatively large proportions of variance of energy and macronutrient intake, but for less variance of alcohol and

micronutrient intake, especially of retinol, beta-carotene, vitamin E, **Ca** and **ascorbic** acid. In addition, factors were related to age, BMI, physical activity, education, smoking and vitamin and mineral supplement use.

L25 ANSWER 12 OF 45 MEDLINE on STN DUPLICATE 5
AN 2001542107 MEDLINE
DN PubMed ID: 11588906
TI Food frequency questionnaire and a screening test.
AU Tsubono Y; Ogawa K; Watanabe Y; Nishino Y; Tsuji I; Watanabe T; Nakatsuka H; Takahashi N; Kawamura M; Hisamichi S
CS Division of Epidemiology, Department of Public Health and Forensic Medicine, Tohoku University Graduate School of Medicine, Sendai, Japan.. ytsubono@metamedica.com
SO Nutrition and cancer, (2001) 39 (1) 78-84.
Journal code: 7905040. ISSN: 0163-5581.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
(VALIDATION STUDIES)
LA English
FS Priority Journals
EM 200205
ED Entered STN: 20011009
Last Updated on STN: 20020510
Entered Medline: 20020509
AB We assessed the accuracy of a 141-item food frequency questionnaire as a screening test to detect high or low consumption of nutrients associated with **cancer**. Fifty-five men and 58 women participating in two population-based cohort studies in Miyagi, Japan, provided four three-day diet records over a one-year period and subsequently completed the questionnaire twice with a one-year interval. Pearson correlation coefficients between 17 nutrients measured by the diet records and the first questionnaire ranged from 0.24 to 0.85 (median 0.43), and those between the two questionnaires ranged from 0.47 to 0.91 (median 0.68). The sensitivity and specificity of the questionnaire for detecting high-alcohol, high-fat, low-**calcium**, and low-**ascorbic** acid consumers were 86.7% and 96.7%, 50.0% and 85.7%, 48.8% and 76.4%, and 61.9% and 70.0%, respectively. Receiver operating characteristic curves indicated comparable performance of the questionnaire and a three-day diet record, regarded as another screening test. The questionnaire performed poorly for other nutrients. The results indicate that our questionnaire is reasonably reproducible, comparable with the diet records, and useful as a screening test to detect high or low consumers of several nutrients associated with **cancer** for subsequent enrollment in dietary intervention trials or dietary counseling.

L25 ANSWER 13 OF 45 MEDLINE on STN DUPLICATE 7
AN 95229927 MEDLINE
DN PubMed ID: 7714194
TI Effects of select medium supplements on in vitro development of Cryptosporidium parvum in HCT-8 cells.
AU Upton S J; Tilley M; Brillhart D B
CS Division of Biology, Kansas State University, Manhattan 66506.
NC AI31774 (NIAID)
SO Journal of clinical microbiology, (1995 Feb) 33 (2) 371-5.
Journal code: 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English

FS Priority Journals
EM 199505
ED Entered STN: 19950524
Last Updated on STN: 19970203
Entered Medline: 19950518
AB Surface-sterilized oocysts of Cryptosporidium parvum were applied to subconfluent monolayers of human adenocarcinoma (HCT-8) cells grown on coverslips in six-well cluster plates. Parasite-infected cultures were then incubated in RPMI 1640 with 10% fetal bovine serum, 15 mM HEPES (N-2-hydroxyethylpiperazine-N'-2-ethanesulfonic acid) buffer, and antibiotics at 37 degrees C in a 5% CO2-95% air incubator for 2 h to allow sporozoites to excyst and enter cells. After cultures were washed free of debris, fresh cell culture media containing select supplements were added and cultures were reincubated. Parasite growth was assessed 66 h later by counting the number of parasite developmental stages in 25 random x 100 oil fields by Nomarski interference-contrast microscopy. Four vitamin supplements, **calcium** pantothenate, L-**ascorbic** acid, folic acid, and 4-(para)-aminobenzoic acid, each resulted in a significant increase in parasite numbers in vitro. The addition of insulin and the sugars glucose, galactose, and maltose also had a positive effect on parasite growth, although the effect was less pronounced than with any of the vitamins. Using the above information, we developed a supplemental medium formulation consisting of RPMI 1640 with 10% fetal bovine serum, 15 mM HEPES, 50 mM glucose, and 35 micrograms of ascorbic acid, 1.0 micrograms of folic acid, 4.0 micrograms of 4-aminobenzoic acid, 2.0 micrograms of calcium pantothenate, 0.1 U of insulin, 100 U of penicillin G, 100 micrograms of streptomycin, and 0.25 microgram of amphotericin B (Fungizone) per ml (pH 7.4). The growth of c. parvum in this medium was found to be enhanced approximately 10-fold compared with that in control medium without additional glucose, insulin, or vitamins.

L25 ANSWER 14 OF 45 MEDLINE on STN DUPLICATE 8
AN 94163757 MEDLINE
DN PubMed ID: 8118928
TI p53 mutation is infrequent and might not give a growth advantage in rat bladder carcinogenesis in vivo.
AU Asamoto M; Mann A M; Cohen S M
CS Department of Pathology and Microbiology, University of Nebraska Medical Center, Omaha 68198-3135.
NC CA32513 (NCI)
CA36727 (NCI)
SO Carcinogenesis, (1994 Mar) 15 (3) 455-8.
Journal code: 8008055. ISSN: 0143-3334.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199404
ED Entered STN: 19940412
Last Updated on STN: 19940412
Entered Medline: 19940407
AB Abnormalities of the p53 gene are frequently observed in human **tumors**, including urinary bladder carcinoma, suggesting that p53 plays an important role in human carcinogenesis. However, its role in rat bladder carcinogenesis is unclear. In this study, we investigated the presence of p53 mutations in 122 urinary bladder **tumors** induced in F344 rats in the following carcinogenesis models: (i) 0.2% N-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide (FANFT; 6 weeks) in the diet followed by 3% or 5% sodium saccharin in the diet, 5% sodium

ascorbate, 3.12% **calcium** saccharin (CaSac), 1.34% sodium chloride (NaCl), 5.2% CaSac plus 1.34% NaCl, or basal diet alone (72 weeks); and (ii) 0.2% FANFT, 0.05% N-(4-hydroxybutyl)nitrosamine in the drinking water, N-methyl-N-nitrosourea 20 mg/kg body wt, i.p. twice per week, or basal diet alone (4 weeks), followed by 3% uracil in the diet (20 weeks). Polymerase chain reaction-single-strand conformation polymorphism analysis and direct sequencing were performed for exons 5-8 in the rat p53 gene. We found nine **tumors** (7.4%) with p53 mutations. Two **tumors** had two mutations in the p53 gene. The **tumors** that had p53 mutations were relatively smaller than those that did not have p53 mutations. There were no mutation clusters among the treatments or hot-spots for p53 mutations. These results indicate that p53 mutation is infrequent in bladder carcinogenesis in rats, and when it does occur, it does not appear to provide a growth advantage.

L25 ANSWER 15 OF 45 MEDLINE on STN DUPLICATE 9
AN 93260737 MEDLINE
DN PubMed ID: 8492329
TI No enhancing effects of calcium/magnesium salts of L-glutamate and L-ascorbate on **tumor** development in a rat medium-term multiorgan carcinogenesis bioassay.
AU Tamano S; Tanaka H; Kawabe M; Asakawa E; Sano M; Shioya S; Shirai T; Fukushima S
CS First Department of Pathology, Nagoya City University Medical School, Japan.
SO Journal of toxicology and environmental health, (1993 May) 39 (1) 43-58. Journal code: 7513622. ISSN: 0098-4108.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199306
ED Entered STN: 19930625
Last Updated on STN: 19930625
Entered Medline: 19930617
AB Calcium/magnesium salts of L-glutamate and L-ascorbate were tested for modification potential using a rat multiorgan carcinogenesis bioassay. Following sequential treatment with three different carcinogens (diethylnitrosamine, N-methylnitrosourea, and dihydroxydi-N-propylnitrosamine) over a 4-wk period, rats were given diet containing 5% monocalcium di-L-glutamate tetrahydrate (Ca-glutamate), 2.5% monomagnesium di-L-glutamate tetrahydrate (Mg-glutamate), 5% L-glutamic acid, 5% monocalcium di-L-**ascorbate** dihydrate (**Ca-ascorbate**), 2.5% monomagnesium di-L-ascorbate dihydrate (Mg-ascorbate), or 5% L-ascorbic acid for 16 wk. Body weight increase was slightly suppressed in the groups receiving **Ca-ascorbate**, Mg-**ascorbate**, and ascorbic acid supplementation after the carcinogen treatments. While administration of **Ca**-glutamate or **Ca-ascorbate** raised urinary pH, ascorbic acid values were decreased. Concentrations of calcium and magnesium ions in the urine increased after ingestion of **Ca**-glutamate or **Ca-ascorbate**, and Mg-glutamate or Mg-ascorbate, respectively, but phosphorus levels decreased in all groups given calcium and magnesium salts. No consistent treatment-related changes in the concentrations of sodium or potassium ions in the urine were detected. Histopathological investigation at wk 20 did not demonstrate any modification of **tumorigenesis** with regard to the incidence of frequency of lesions developing in the various target organs/tissues. The present results thus revealed no apparent enhancement of carcinogenesis at any site, including

the urinary system, by calcium or magnesium salts using the present rat multiorgan carcinogenesis bioassay.

L25 ANSWER 16 OF 45 MEDLINE on STN DUPLICATE 10
AN 93038993 MEDLINE
DN PubMed ID: 1418082
TI Effect of acetylsalicylic acid, ascorbate and ibuprofen on the macrophage system.
AU Hockertz S; Schettler T; Rogalla K
CS Fraunhofer Institute of Toxicology, Hannover, Fed. Rep. of Germany.
SO Arzneimittel-Forschung, (1992 Aug) 42 (8) 1062-8.
Journal code: 0372660. ISSN: 0004-4172.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199211
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921106
AB The influence of **ascorbic** acid (**CAS** 50-81-7), acetylsalicylic acid (CAS 50-78-2) and ibuprofen (CAS 15687-27-1) on macrophages of C57BL/6 mice was investigated in vitro. It has been shown that ascorbic acid or acetylsalicylic acid alone did not stimulate or inhibit the production of interleukin-6, whereas a combination of both substances caused a significant stimulation. The viral replication in L929 fibroblasts was not affected by ascorbate and/or acetylsalicylic acid. In addition, the **tumor**-necrosis factor (TNF) synthesis of peritoneal macrophages was neither stimulated nor inhibited by both substances, alone or in combination. The oxygen radical production, however, was definitely inhibited by ascorbic acid, the effect of acetylsalicylic acid was far less marked, but at the high concentrations the inhibition was clearly discernible. Ibuprofen, a propionic acid derivate, was able to reduce the replication of vesicular stomatitis virus in L929 fibroblast cells. At the highest concentration of ibuprofen, 100 micrograms/ml, 34% of the fibroblast were able to survive. This protective effect declined as the ibuprofen concentration decreased. Ibuprofen could not stimulate peritoneal macrophages to secrete TNF, whereas the oxygen radical production was significantly reduced. In addition, ibuprofen activated mouse macrophages to produce interleukin-6 in a dose dependent way. The results of the in vitro experiments presented clearly show that ascorbic acid, acetylsalicylic acid in ibuprofen influenced the unspecific immune system.

L25 ANSWER 17 OF 45 MEDLINE on STN DUPLICATE 11
AN 93065405 MEDLINE
DN PubMed ID: 1437648
TI Differences in dietary intake with smoking, alcohol, and education.
AU La Vecchia C; Negri E; Franceschi S; Parazzini F; Decarli A
CS Istituto di Ricerche Farmacologiche Mario Negri, Milano, Italy.
SO Nutrition and cancer, (1992) 17 (3) 297-304.
Journal code: 7905040. ISSN: 0163-5581.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199212
ED Entered STN: 19930122
Last Updated on STN: 19930122

Entered Medline: 19921209

AB Differences in the frequency of consumption of 30 selected foods and in the estimated intake of total calories and selected nutrients in relation to alcohol drinking, tobacco smoking, and education were described using information obtained from 1,774 controls of a case-control study of digestive tract **cancers** conducted in northern Italy. Heavy alcohol consumption, tobacco smoking, and lower level of education were associated with a diet poorer in several aspects, including lower consumption of fresh fruit and green vegetables and higher intake of specific indicator foods, such as sausages and canned meat. For instance, the mean number of portions of fresh fruit per week was 10.5 among male nondrinkers vs. 9.0 among heavy drinkers, 10.4 among male nonsmokers vs. 8.1 among heavy smokers, and 8.8 in less educated individuals vs. 10.7 among those more educated. Consequently, intake of beta-carotene, **ascorbic** acid, and **calcium** tended to be inversely related to alcohol and tobacco and directly related to education. Most associations were stronger in males, for whom alcohol consumption was also more common in less educated individuals. Calorie intake was directly related to alcohol consumption, largely reflecting calories provided by alcohol itself. However, alcohol drinking was also directly related to fat consumption. In both sexes, there was a strong positive correlation between cigarette smoking and coffee drinking. These results provide quantitative documentation that alcohol drinking, tobacco smoking, and education, three of the major determinants of **cancer** risks, were also correlates of dietary patterns and, hence, may exert an important confounding or modifying effect on the diet and **cancer** relationship.

L25 ANSWER 18 OF 45 MEDLINE on STN DUPLICATE 12
AN 91275110 MEDLINE
DN PubMed ID: 2054786
TI H-ras mutations in rat urinary bladder carcinomas induced by N-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide and sodium saccharin, sodium ascorbate, or related salts.
AU Masui T; Mann A M; Macatee T L; Okamura T; Garland E M; Fujii H; Pelling J C; Cohen S M
CS Department of Pathology and Microbiology, University of Nebraska Medical Center, Omaha 68198-3135.
NC CA32513 (NCI)
CA36727 (NCI)
SO Cancer research, (1991 Jul 1) 51 (13) 3471-5.
Journal code: 2984705R. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199108
ED Entered STN: 19910818
Last Updated on STN: 20000303
Entered Medline: 19910801

AB Male F344 rats were fed 0.2% N-[4-(5-nitro-2-furyl)-2-thiazoly]formamide for 6 weeks and then fed 3% or 5% sodium saccharin, 5% sodium **ascorbate**, 3.12% **calcium** saccharin, 1.34% sodium chloride, 5.2% calcium saccharin plus 1.34% sodium chloride, or basal diet alone for 72 weeks. Protein and DNA were extracted from 89 bladder **tumors** [87 transitional cell carcinomas (TCC), 1 papilloma, and 1 sarcoma] from 86 rats p21 expression was examined by Western blotting using a monoclonal antibody against p21 (NCC-RAS-004). H-ras mutations in exons 1 and 2 were examined by direct sequencing of DNA amplified by

polymerase chain reaction. Sequencing results demonstrated mutations at codon 61 (CAA to CGA in 15 TCCs; CAA to CTA in 2 TCCs), at codon 12 (GGA to TGG in 1 TCC), and at codon 13 (GGC to GTC in 3 TCCs). Mutations at codon 61 were confirmed by faster mobility of the p21 band in Western blots. The level of p21 expression varied among samples, but many TCCs appeared to express more p21 than controls. The overall incidence of H-ras mutations was 24.4% (21 of 86 rats). The type of chemical used for the promoting phase had essentially no effect on H-ras mutation, suggesting that the effects observed were related to FANFT administration. The frequency of H-ras mutation in each group was negatively related to the incidence of carcinoma (r = -0.85; P less than 0.01). Two groups of **tumors** (with or without the mutated ras gene) were compared for **tumor** size (reflected by the bladder weight), histological grading, and the presence of invasion. The size of **tumors** with mutated ras was significantly smaller than those without mutated ras. There was no difference in the histological grading between the two groups. Although not statistically significant, histological invasion was more frequently observed in **tumors** with mutated ras (14.3%) than in **tumors** without mutation (3.1%).

L25 ANSWER 19 OF 45 MEDLINE on STN DUPLICATE 13
AN 89139353 MEDLINE
DN PubMed ID: 2645272
TI Chemoprevention of colon **cancer**.
AU Winn R J; Levin B
CS Section of Community Oncology, University of Texas M.D. Anderson Cancer Center, Houston.
SO Hematology/oncology clinics of North America, (1989 Mar) 3 (1) 65-73.
Ref: 59
Journal code: 8709473. ISSN: 0889-8588.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 198904
ED Entered STN: 19900306
Last Updated on STN: 19900306
Entered Medline: 19890405
AB Animal **tumor** experiments and epidemiologic studies suggest that several agents may be of potential value in blocking the development of colon adenomas and carcinoma. Recent laboratory investigations have demonstrated several intermediate markers that are altered in the colonic epithelium of high-risk individuals and that can be modulated by several possible chemopreventive agents. **Calcium** and **ascorbic** acid are two agents that have been investigated in preliminary studies. Although the results have not been striking, these studies have pointed up methodologic issues that must be addressed and will contribute greatly to the design of the next generation of trials. Given the advances in the elucidation of the carcinogenic processes in colon **cancer**, it is reasonable to hope that the next decade of research will discover chemoprevention strategies that will protect individuals from the development of the most common **tumor** in Western society.

L25 ANSWER 20 OF 45 MEDLINE on STN DUPLICATE 14
AN 87187101 MEDLINE
DN PubMed ID: 3567885
TI Absence of promotion potential for **calcium** L-**ascorbate**

, L-**ascorbic** dipalmitate, L-ascorbic stearate and erythorbic acid on rat urinary bladder carcinogenesis.
AU Fukushima S; Ogiso T; Kurata Y; Shibata M A; Kakizoe T
SO Cancer letters, (1987 Apr) 35 (1) 17-25.
Journal code: 7600053. ISSN: 0304-3835.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198705
ED Entered STN: 19900303
Last Updated on STN: 19900303
Entered Medline: 19870522
AB The effects of treatment with **calcium** L-**ascorbate**, L-**ascorbic** dipalmitate, L-ascorbic stearate and erythorbic acid on two-stage urinary bladder carcinogenesis in F344 rats after initiation with N-butyl-N-(4-hydroxybutyl)nitrosamine (BBN) were examined. Carcinogen was administered at a dose of 0.05% in drinking water for 4 weeks and thereafter the test chemicals were given as a 5% supplement in the diet for the following 32 weeks. No increase in the induction of preneoplastic lesions, papillomas or carcinomas was apparent and it was concluded that none of the test chemicals possess promoting activity for urinary bladder carcinogenesis.

L25 ANSWER 21 OF 45 MEDLINE on STN
AN 2000401837 MEDLINE
DN PubMed ID: 10905066
TI In vitro infection of Cryptosporidium parvum to four different cell lines.
AU Yu J R; Choi S D; Kim Y W
CS Department of Parasitology, College of Medicine, Konkuk University, Chungju, Korea.. jaeran.yu@kku.ac.kr
SO Korean journal of parasitology, (2000 Jun) 38 (2) 59-64.
Journal code: 9435800. ISSN: 0023-4001.
CY KOREA (SOUTH)
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200008
ED Entered STN: 20000901
Last Updated on STN: 20000901
Entered Medline: 20000822
AB To determine a suitable condition for in vitro infection model of Cryptosporidium parvum, four different cell lines, AGS, MDCK, HCT-8 and Caco-2, were used as host cell lines which were cultured at various concentrations of added supplements. These supplement include fetal bovine serum (FBS), sodium choleate, **ascorbic** acid, folic acid, **calcium** pantothenate, para-aminobenzoic acid and pyruvate and their effects on the cell lines which were infected with C. parvum were evaluated. The results of this study showed that the AGS cell line was most susceptible to C. parvum whereas the Caco-2 cells appeared to be least susceptible to C. parvum. In regards to the serum condition, 10% FBS was suitable for the growth of AGS and HCT-8 cells, and 1% FBS was good for the growth of the MDCK cells when they were inoculated with C. parvum. Vitamins had a positive effect on the AGS cells, and pyruvate also showed positive effects on all of the cell lines except for Caco-2. Modified medium for each cell line was prepared by adding appropriate amounts of each supplement which resulted in the highest parasite infection number. Modified media increased the number of parasites infected on AGS cells to 2.3-fold higher when compared to the control

media. In this study, we found that the AGS cell line was a suitable host model for evaluating C. parvum in vitro study and the media contents for the optimal infection conditions were suggested.

L25 ANSWER 22 OF 45 MEDLINE on STN
AN 97040572 MEDLINE
DN PubMed ID: 8885885
TI Simplified methods for obtaining purified oocysts from mice and for growing Cryptosporidium parvum in vitro.
AU Meloni B P; Thompson R C
CS WHO Collaborating Centre for the Molecular Epidemiology of Parasitic Infections, School of Veterinary Studies, Murdoch University, Australia.
SO Journal of parasitology, (1996 Oct) 82 (5) 757-62.
Journal code: 7803124. ISSN: 0022-3395.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199611
ED Entered STN: 19961219
Last Updated on STN: 19961219
Entered Medline: 19961118
AB Seven- to 8-day-old Arc/Swiss mice were infected with 100,000-120,000 Cryptosporidium parvum oocysts. At 8 days postinfection (PI) the jejunum, ileum, cecum, colon, and rectum were removed. Using a simple extraction procedure and purification by Ficoll gradient centrifugation, we rountinely obtained between 3-6 million and up to 15 million purified oocysts per mouse. For in vitro cultivation, purified oocysts were pretreated in a low pH (2.5-3) 0.5% trypsin solution for 20 min, resuspended in supplemented RPMI-1640 containing glucose 0.1 g (5.55 mM), sodium bicarbonate 0.3 g, bovine bile 0.02 g, folic acid 25 micrograms, 4-aminobenzoic acid 100 micrograms, **calcium** pantothenate 50 micrograms, **ascorbic** acid 875 micrograms, penicillin G 10,000 U and streptomycin 0.01 g per 100 ml, and 1% fetal bovine serum (pH 7.4 before filtration), and used to inoculate confluent monolayers of the human adenocarcinoma cell line HCT-8. Incubation was in a candle jar at 37 C. We tested numerous supplements to RPMI-1640, different pHs, and atmospheric conditions and found the parameters described above produced the greatest parasite numbers in vitro. We obtained significantly superior growth of C. parvum grown in HCT-8 cells using the conditions described above than in culture conditions described previously.

L25 ANSWER 23 OF 45 MEDLINE on STN
AN 91168147 MEDLINE
DN PubMed ID: 2004360
TI Comparative bladder **tumor** promoting activity of sodium saccharin, sodium **ascorbate**, related acids, and **calcium** salts in rats.
AU Cohen S M; Ellwein L B; Okamura T; Masui T; Johansson S L; Smith R A; Wehner J M; Khachab M; Chappel C I; Schoenig G P; +
CS Department of Pathology and Microbiology, University of Nebraska Medical Center, Omaha 68198-3135.
NC CA32513 (NCI)
CA36727 (NCI)
SO Cancer research, (1991 Apr 1) 51 (7) 1766-77.
Journal code: 2984705R. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English

FS Priority Journals
EM 199104
ED Entered STN: 19910512
Last Updated on STN: 19910512
Entered Medline: 19910423
AB Sodium saccharin and sodium ascorbate are known to promote urinary bladder carcinogenesis in rats following initiation with N-[4-(5-nitro-2-furyl)-2-thiazolyl]formamide (FANFT) or N-butyl-N-(4-hydroxybutyl) nitrosamine. Sodium salts of other organic acids have also been shown to be bladder **tumor** promoters. In addition, these substances increase urothelial proliferation in short term assays in rats when fed at high doses. When they have been tested, the acid forms of these salts are without either promoting or cell proliferative inducing activity. The following experiment was designed to compare the **tumor** promoting activity of various forms of saccharin and to evaluate the role in promotion of urinary sodium, calcium, and pH as well as other factors. Twenty groups of 40 male F344 rats, 5 weeks of age, were fed either FANFT or control diet during a 6-week initiation phase followed by feeding of a test compound for 72 weeks in the second phase. The chemicals were administered to the first 18 groups in Agway Prolab 3200 diet and the last 2 groups were fed NIH-07 diet. The treatments were as follows: (a) FANFT----5% sodium saccharin (NaS); (b) FANFT----3% NaS; (c) FANFT----5.2% calcium saccharin (CaS); (d) FANFT----3.12% CaS; (e) FANFT----4.21% acid saccharin (S); (f) FANFT----2.53% S; (g) FANFT----5% sodium ascorbate; (h) FANFT----4.44% ascorbic acid; (i) FANFT----5% NaS plus 1.15% CaCO3; (j) FANFT----5.2% CaS plus 1.34% NaCl; (k) FANFT----5% NaS plus 1.23% NH4Cl; (l) FANFT----1.15% CaCO3; (m) FANFT----1.34% NaCl; (n) FANFT----control; (o) control----5% NaS; (p) control----5.2% CaS; (q) control----4.21% S; (r) Control----control; (s) FANFT----5% NaS (NIH-07 diet); (t) FANFT----control (NIH-07 diet). NaS, CaS and S without prior FANFT administration were without **tumorigenic** activity. NaS was found to have **tumor** promoting activity, showing a positive response at the 5 and 3% dose levels, with significantly greater activity at the higher dose. CaS had slight **tumor** promoting activity but without a dose response, and S showed no **tumor** promoting activity. In addition, NaCl showed weak **tumor** promoting activity, but CaCO3 was without activity. NH4Cl completely inhibited the **tumor** promoting activity of NaS when concurrently administered with it. NaCl administered with CaS or CaCO3 administered with NaS showed activity similar to that of NaS. Sodium ascorbate was also shown to have **tumor** promoting activity, with slightly less activity than NaS. Ascorbic acid showed no **tumor** promoting activity.(ABSTRACT TRUNCATED AT 400 WORDS)

L25 ANSWER 24 OF 45 MEDLINE on STN
AN 92048115 MEDLINE
DN PubMed ID: 1943443
TI Stimulatory action of **calcium** L-threonate on **ascorbic** acid uptake by a human T-lymphoma cell line.
AU Fay M J; Verlangieri A J
CS Department of Pharmacology, University of Mississippi School of Pharmacy, University 38677.
SO Life sciences, (1991) 49 (19) 1377-81.
Journal code: 0375521. ISSN: 0024-3205.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199111

ED Entered STN: 19920124
Last Updated on STN: 19970203
Entered Medline: 19911125
AB The effects of preincubation of human T-lymphoma cells with increasing concentrations of calcium L-threonate on the uptake of L-[1-14C]ascorbic acid were examined. Calcium L-threonate (0-1,000 mg%) stimulated ascorbic acid (1.25 mg%) uptake in a dose-dependent manner. These results indicate that calcium threonate and possibly other ascorbic acid metabolites have biological activity and potential pharmacological applications.

L25 ANSWER 25 OF 45 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2004120512 EMBASE
TI Behavioral variables and education are predictors of dietary change in the Women's Health Trial: Feasibility Study in Minority Populations.
AU Bhargava A.; Hays J.
CS Dr. A. Bhargava, Department of Economics, University of Houston, Houston, TX 77204-5019, United States. bhargava@uh.edu
SO Preventive Medicine, (2004) 38/4 (442-451).
Refs: 35
ISSN: 0091-7435 CODEN: PVTMA3
PUI S 0091-7435(03)00328-1
CY United States
DT Journal; Article
FS 017 Public Health, Social Medicine and Epidemiology
LA English
SL English
AB Background. Reducing the intakes of fats and increasing consumption of fruits and vegetables are an important goal for improving population health. Analyzing the effects of nutrition education programs on subjects' dietary intakes incorporating factors such as habit persistence in diets, unhealthy eating habits, perceptions of health risks, participation motivation, and expectancies can yield useful insights. Methods. A Food Frequency Questionnaire (FFQ) was used to measure intakes at baseline, 6 and 12 months, by 318 and 548 postmenopausal women in, respectively, the Control and Intervention groups of the Women's Health Trial: Feasibility Study in Minority Populations (WHTFSMP). Information on background, behavioral, and anthropometric variables was collected. The Intervention group met in classes led by nutritionists. Dynamic random effects models were estimated for the two groups using the data at baseline, 6 and 12 months on the intakes of carbohydrate, saturated, monounsaturated, and polyunsaturated fats, fiber, β-carotene, **ascorbic** acid, and **calcium**. Results. The nutrition education program lowered the intakes of fats while increasing fiber, β-carotene, and ascorbic acid intakes especially in subjects scoring high on indices reflecting concerns ab0out health, desirability of change, and participation motivation. In addition, subjects' education was a predictor of dietary intakes in the Intervention group. Conclusions. Nutrition education can be an effective tool for improving diets, but behavioral characteristics deserve greater attention in helping to design the most effective approaches for various target groups. .COPYRGT. 2003 The Institute For **Cancer** Prevention and Elsevier Inc. All rights reserved.

L25 ANSWER 26 OF 45 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 95154150 EMBASE
DN 1995154150
TI [The significance of calcium and vitamin D in prevention and therapy]. CALCIUM UND VITAMIN D: BEDEUTUNG IN PRAVENTION UND THERAPIE.

AU Kramer K.; Stuck K.; Rimbach G.; Pallauf J.
CS Institut fur Tierernahrung, Ernahrungsphysiologie, Justus-Liebig-Universitat, Senckenbergstrasse 5,35390 Giessen, Germany
SO Pharmazeutische Zeitung, (1995) 140/20 (9-15).
ISSN: 0031-7136 CODEN: PZSED5
CY Germany
DT Journal; General Review
FS 006 Internal Medicine
016 Cancer
048 Gastroenterology
037 Drug Literature Index
LA German
SL German

L25 ANSWER 27 OF 45 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 83017083 EMBASE
DN 1983017083
TI Prophylactic inhibition of transplantable melanoma **tumor** development in mice by **Ca-ascorbate**.
AU Varga J.M.; Airoldi L.
CS Dep. Dermatol., Yale Univ. Sch. Med., New Haven, CT 06510, United States
SO Clinical Research, (1982) 30/2 (613A).
CODEN: CLREAS
CY United States
DT Journal
FS 037 Drug Literature Index
LA English

L25 ANSWER 28 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2003:442009 BIOSIS
DN PREV200300442009
TI Regression of gastric premalignant lesions in humans supplemented with complex of **Ca-ascorbate** (**Ca**-asc) and Bioflavonoids (BF).
AU Bukin, Yuriy V. [Reprint Author]; Draudin-Krylenko, Vladimir A.; Kuvshinov, Yuriy P.; Petuhov, Alexander B.
CS Russian Cancer Research Center, Moscow, Russia
SO Proceedings of the American Association for Cancer Research Annual Meeting, (July 2003) Vol. 44, pp. 172. print.
Meeting Info.: 94th Annual Meeting of the American Association for Cancer Research. Washington, DC, USA. July 11-14, 2003.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 24 Sep 2003
Last Updated on STN: 24 Sep 2003

L25 ANSWER 29 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2003:21815 BIOSIS
DN PREV200300021815
TI Chemopreventive action of the complex containing **Ca-ascorbate** and bioflavonoids in case of gastric premalignant lesions in humans.
AU Bukin, Yuriy V. [Reprint Author]; Draudin-Krylenko, Vladimir A. [Reprint Author]; Kuvshinov, Yuriy P. [Reprint Author]

CS Russian Cancer Research Center, Moscow, Russia
SO Cancer Epidemiology Biomarkers & Prevention, (October 2002) Vol. 11, No. 10 Part 2, pp. 1186s. print.
Meeting Info.: Proceedings of the American Association for Cancer Research Conference on Frontiers in Cancer Prevention Research. Boston, MA, USA. October 14-18, 2002. American Society of Preventive Oncology.
ISSN: 1055-9965 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 1 Jan 2003
Last Updated on STN: 11 Feb 2003

L25 ANSWER 30 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2002:132543 BIOSIS
DN PREV200200132543
TI Superoxide radical scavenging ability of bioflavonoids.
AU Senthilmohan, Senti T. [Reprint author]; Wood, Jacqueline E.
CS Department of Chemical and Process Engineering, University of Canterbury, Christchurch, New Zealand
SO Free Radical Biology and Medicine, (November, 2001) Vol. 31, No. 10, pp. S38. print.
Meeting Info.: 8th Annual Meeting of the Oxygen Society. Research Triangle Park, North Carolina, USA. November 15-19, 2001. Oxygen Society.
CODEN: FRBMEH. ISSN: 0891-5849.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 6 Feb 2002
Last Updated on STN: 21 Mar 2002

L25 ANSWER 31 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2000:264644 BIOSIS
DN PREV200000264644
TI Calcium phosphate-containing precipitate and the carcinogenicity of sodium salts in rats.
AU Cohen, Samuel M. [Reprint author]; Arnold, Lora L.; Cano, Martin; Ito, Masahiro; Garland, Emily M.; Shaw, R. Anthony
CS Department of Pathology and Microbiology, Eppley Institute for Research on Cancer, University of Nebraska Medical Center, Omaha, NB, 68198-3135, USA
SO Carcinogenesis (Oxford), (April, 2000) Vol. 21, No. 4, pp. 783-792. print.
CODEN: CRNGDP. ISSN: 0143-3334.
DT Article
LA English
ED Entered STN: 21 Jun 2000
Last Updated on STN: 5 Jan 2002
AB Sodium saccharin, ascorbate and other sodium salts fed at high doses to rats produce urinary bladder urothelial cytotoxicity with consequent regenerative hyperplasia. For sodium salts that have been tested, **tumor** activity is enhanced when administered either alone or after a brief exposure to a known genotoxic bladder carcinogen. These sodium salts alter urinary composition of rats resulting in formation of an amorphous precipitate. We examined the precipitate to ascertain its composition and further delineate the basis for its formation in rat urine. Using scanning electron microscopy with attached X-ray energy dispersive spectroscopy, the principal elements present were calcium, phosphorus, minor amounts of silicon and sulfur. Smaller elements are not

detectable by this method. Infrared analyses demonstrated that calcium phosphate was in the tribasic form and silicon was most likely in the form of silica. Small amounts of saccharin were present in the precipitate from rats fed sodium saccharin (<5%), but ascorbate was not detectable in the precipitate from rats fed similar doses of sodium ascorbate. Large amounts of urea and mucopolysaccharide, apparently chondroitin sulfate, were detected in the precipitate by infrared analysis. Chemical analyses confirmed the presence of large amounts of calcium phosphate with variably small amounts of magnesium, possibly present as magnesium ammonium phosphate crystals, present in urine even in controls. Small amounts of protein, including albumin and alpha2u-globulin, were also detected (<5% of the precipitate). Calcium phosphate is an essential ingredient of the medium for tissue culture of epithelial cells, but when present at high concentrations (>5 mM) it precipitates and becomes cytotoxic. The nature of the precipitate reflects the unique composition of rat urine and helps to explain the basis for the species specificity of the cytotoxic and proliferative effects of high doses of these sodium salts.

L25 ANSWER 32 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1986:77758 BIOSIS
DN PREV198630077758; BR30:77758
TI RESPONSE OF URINARY CONSTITUENTS AND BLADDER EPITHELIUM TO ADMINISTRATION OF CHEMICALS AND THEIR SODIUM SALTS POSSESSING PROMOTING POTENTIAL SODIUM SALTS.
AU SHIBATA M-A [Reprint author]; KURATA Y; OGISO T; MASUI T; FUKUSHIMA S
CS 1ST DEP PATHOL, NAGOYA CITY UNIV MED SCH, 1 KAWASUMI, MIZUHO-CHO, MIZUHO-KU, NAGOYA 467
SO Journal of Toxicological Sciences, (1985) Vol. 10, No. 3, pp. 264. Meeting Info.: 21ST ANNUAL MEETING OF THE JAPANESE SOCIETY OF TOXICOLOGICAL SCIENCES, TOKYO, JAPAN, JULY 1-2, 1985. J TOXICOL SCI. CODEN: JTSCDR. ISSN: 0388-1350.
DT Conference; (Meeting)
FS BR
LA ENGLISH
ED Entered STN: 25 Apr 1986
Last Updated on STN: 25 Apr 1986

L25 ANSWER 33 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1983:140831 BIOSIS
DN PREV198325065831; BR25:65831
TI PROPHYLACTIC INHIBITION OF TRANSPLANTABLE MELANOMA **TUMOR** DEVELOPMENT IN MICE BY **CALCIUM ASCORBATE**.
AU VARGA J M [Reprint author]; AIROLDI L
CS DEP DERMATOL, YALE UNIV SCH MED, NEW HAVEN, CT 06510, USA
SO Clinical Research, (1982) Vol. 30, No. 2, pp. 613A. Meeting Info.: 43RD ANNUAL MEETING OF THE SOCIETY FOR INVESTIGATIVE DERMATOLOGY, INC., WASHINGTON, D.C., USA, MAY 6-8, 1982. CLIN RES. CODEN: CLREAS. ISSN: 0009-9279.
DT Conference; (Meeting)
FS BR
LA ENGLISH

L25 ANSWER 34 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1981:39027 BIOSIS
DN PREV198120039027; BR20:39027
TI A RAPID METHOD FOR THE EVALUATION OF ANTI CARCINOGENS BY INHIBITION OF

MICROSOMAL DE GRANULATION.
AU JAGOTA S K [Reprint author]; DANI H M
CS DEP BIOCHEM, PANJAB UNIV, CHANDIGARH 160 014, PUNJAB/HARYANA, INDIA
SO Indian Journal of Experimental Biology, (1980) Vol. 18, No. 7, pp. 711-713.
CODEN: IJEBA6. ISSN: 0019-5189.
DT Article
FS BR
LA ENGLISH

L25 ANSWER 35 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1981:60889 BIOSIS
DN PREV198120060889; BR20:60889
TI COFACTOR INFLUENCE ON **TUMOR** CELL GROWTH AND MEAN SURVIVAL TIME IN-VIVO.
AU SCHMEER A C [Reprint author]
CS AMC CANCER RESEARCH CENTER AND HOSPITAL, DENVER COLORADO 80214 USA, USA
SO European Journal of Cell Biology, (1980) Vol. 22, No. 1, pp. 547.
Meeting Info.: 2ND INTERNATIONAL CONGRESS ON CELL BIOLOGY, BERLIN, WEST GERMANY, AUG. 31-SEPT. 5, 1980. EUR J CELL BIOL.
CODEN: EJCBDN. ISSN: 0171-9335.
DT Conference; (Meeting)
FS BR
LA ENGLISH

L25 ANSWER 36 OF 45 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1974:90754 BIOSIS
DN PREV197410090754; BR10:90754
TI SYMPTOMATIC AND PATHOGENETIC THERAPY IN METABOLIC ACIDOSIS.
AU MONCHENKO G D; PRUTSEVA N V
SO Eksperimental'naya Khirurgiya i Anesteziologiya, (1973) Vol. 18, No. 6, pp. 57-61.
DT Article
FS BR
LA Unavailable

L25 ANSWER 37 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2002-616506 [66] WPIX
CR 2000-678691 [66]; 2000-678692 [66]
DNC C2002-174270
TI Hemotherapeutic chemopreventative composition used for treating vascular diseases e.g. atherosclerosis, comprises oxalic acid and/or oxalate.
DC B05 D13 D21
IN HART, F J
PA (HART-I) HART F J
CYC 1
PI US 6407141 B1 20020618 (200266)* 41
ADT US 6407141 B1 Provisional US 1995-6785P 19951115, CIP of US 1996-629538 19960409, Provisional US 1997-36983P 19970129, CIP of US 1998-14943 19980128, US 2000-535572 20000327
FDT US 6407141 B1 CIP of US 6133317, CIP of US 6133318
PRAI US 2000-535572 20000327; US 1995-6785P 19951115;
US 1996-629538 19960409; US 1997-36983P 19970129;
US 1998-14943 19980128
AB US 6407141 B UPAB: 20021014
NOVELTY - Hemotherapeutic chemopreventative composition (I) comprises oxalic acid and/or oxalate.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) production of (I) which comprises mixing oxalic acid dihydrate dissolved in distilled water to produce at least one of a mixture of a mixture, solution, rinse, mouthwash, mouthrinse and wash, and

(2) treating vascular system diseases which comprises adding a dietary supplement containing oxalic acid and/or oxalate to the regular diet, and

(3) treating vascular system diseases, plaque, microbial infections, fatty build up and calcerous conditions of the vascular system and the brain which comprises reducing or eliminating ingestion or administration of oxalic acid or oxalate blockers, administering or ingesting high dosages of oxalic acid and/or oxalate to increase the blood urine oxalic acid or oxalate level above normal and administering a moderate level of oxalic acid and/or oxalate after cleansing the blood of diseases and other conditions to maintain a normal blood or urine level of oxalic acid or oxalate.

ACTIVITY - Antiarteriosclerotic; Antibacterial; Cardiant; Cerebroprotective; Virucide; Neuroprotective; Nootropic; Immunosuppressive; Anti-HIV; Cytostatic; Immunomodulator; Immunostimulant; Tuberculostatic; Antileprotic; Dermatological; Antiseborrheic; Cytostatic; Antiinflammatory; Antilipemic; Nephrotropic; Antidiarrheal; Uropathic.

Tests are described, but no quantitative results are given.

MECHANISM OF ACTION - None given in the source material.

USE - Used for treating vascular diseases, particularly arteriosclerosis, atherosclerosis, endocarditis, plaque, fatty build up, microbial infections and calcerous conditions in the cardiovascular system or brain. (I) Is also used for treating viral and autoimmune related diseases e.g. AIDS and HIV and their symptoms, **cancer**, Gram positive and Gram negative bacterial diseases, tuberculosis, leprosy, acne, bronchitis, Alzheimer's disease, strokes, diarrhea, indigestion, damage to the digestive tract, kidney damage, renal failure and muscle soreness, for purifying the blood and controlling cholesterol in the cardiovascular system and increasing energy, stamina, strength and/or mental activity.

Dwg.0/0

L25 ANSWER 38 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2004-133335 [14] WPIX
DNC C2004-053270
TI Composition used for preventing e.g. cardiovascular disease and **cancer**, comprises vitamins, trace minerals and phytonutrients.
DC B05
IN LO, E
PA (LOEE-I) LO E
CYC 1
PI CA 2325041 A1 20020517 (200414)* EN 3
ADT CA 2325041 A1 CA 2000-2325041 20001117
PRAI CA 2000-2325041 20001117
AB CA 2325041 A UPAB: 20040226

NOVELTY - Composition comprises:

(a) vitamins comprising 500 mg vitamin C (**calcium ascorbate**), 400 IU vitamin E (as mixed vitamin E), 0.05 mg folic acid and 500 mcg vitamin B12;

(b) trace minerals comprising 90 mcg selenium, and

(c) phytonutrients comprising 90 mcg proanthocyanidins as 90 mg maritime pine bark extract and grape seed extract in equal amounts.

ACTIVITY - Cardiovascular-Gen.; Cytostatic; Neuroprotective; Nootropic; Antioxidant; Anticoagulant; Thrombolytic; Immunostimulant.

No biological data is given.
MECHANISM OF ACTION - None given.
USE - Used for preventing cardiovascular disease, **cancer**, Alzheimer's disease and age related dementia and illnesses and other diseases caused by or attributed to oxidative stress as listed in Annuals of Internal Medicine (American College of Physicians) 1987; 1097:526-545. The proanthocyanidins are powerful antioxidants with antiplatelet, antithrombotic and immune system enhancing properties.
ADVANTAGE - The composition mimics the endogenous antioxidant system and the components have a synergistic action.
Dwg.0/0

L25 ANSWER 39 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2001-235065 [24] WPIX
DNC C2001-070430
TI Pulmonary administration of mineral ascorbates to treat pulmonary disorders e.g. respiratory distress syndrome, pneumonia, viral infection, asthma, lung **cancer** and bronchitis.
DC B03 B05
IN ZIDICHOUSKI, J
PA (OXYC-N) OXYCAL LAB INC
CYC 31
PI WO 2001015777 A1 20010308 (200124)* EN 39
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA CN IS JP KP KR MX NO NZ SG TR US
AU 9957978 A 20010326 (200137)
ADT WO 2001015777 A1 WO 1999-US19977 19990831; AU 9957978 A AU 1999-57978 19990831, WO 1999-US19977 19990831
FDT AU 9957978 A Based on WO 2001015777
PRAI WO 1999-US19977 19990831
AB WO 200115777 A UPAB: 20011024
NOVELTY - Administration of a vitamin C component to the lung-air exchange surface of lung tissue wherein the Vitamin C component is a mineral ascorbate.
DETAILED DESCRIPTION - Pulmonary administration of a mineral ascorbate, where the ascorbate is selected from an alkaline earth metal ascorbate e.g. Mg or **Ca ascorbate**, a transition metal ascorbate e.g. zinc ascorbate or an alkali metal ascorbate e.g. sodium or potassium ascorbate. The composition for inhalation administration comprises an inhalable aerosol including solid particles of a mineral ascorbate or an inhalable aerosol of liquid particles containing the mineral ascorbate suspended in a carrier gas.
An INDEPENDENT CLAIM is also included for methods of applying a mineral ascorbate to the lung-exchange surface of the lung tissue comprising: (1) forming a composition comprising a particulate mineral ascorbate with particle size 0.5-10 microns or forming a liquid composition comprising a mineral ascorbate in a liquid carrier; (2) aerolizing the composition or liquid composition with a gaseous carrier; and (3) applying the aerosolized composition to the lung-air exchange surface of lung tissue by inhalation.
ACTIVITY - Antiinflammatory; antibacterial; virucide; antiasthmatic; tuberculostatic; cytostatic; antiallergic.
MECHANISM OF ACTION - None given.
USE - Vitamin C compositions can be used to treat a wide variety of lung-specific conditions including infant and adult respiratory distress syndrome, age-related decrease in lung function, viral pneumonia, bacterial pneumonia, Group B streptococcal infections, oxygen toxicity, alpha -1-antiprotease deficiency, emphysema, asthma, the deleterious effects of smoking, tuberculosis, lung **cancer**, bronchitis,

cystic fibrosis, mucopurulent and purulent exacerbation of simple mucoid bronchitis, bronchorrhea, bronchopneumonia, purulent pneumonia, pneumonic-alveolar consolidation, bronchiectasis, bronchocoele, post-transplantation obliterative bronchiolitis and allergenic bronchiolitis and chronic obstructive pulmonary disease. It may also be used as a pre-treatment to hyperbaric oxygen therapy. Other active agents may be co-administered in the composition including antivirals, antibacterials, fungicides, antibiotics, protease inhibitors, antioxidants, antiinflammatories, antiallergenics, beta -adrenergic agonists, sympathomimetic amines, mucolytics and chemotherapeutic agents.

ADVANTAGE - The composition allows direct pulmonary administration which is more efficient than oral administration and increases ascorbic acid content at the lung-air exchange interface.

Dwg.0/0

L25 ANSWER 40 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2001-078691 [09] WPIX
DNC C2001-022433
TI Biologically active addition containing a specified blend of minerals, vitamins and other additives.
DC B05 D13 D21
IN GRIGOREV, A V; GRIGOREV, V M; SHOLOKHOV, O V; SHOLOKHOV, V M
PA (ELME-R) ELTRN MED FIRM CO LTD
CYC 1
PI RU 2156087 C1 20000920 (200109)*
ADT RU 2156087 C1 RU 1999-124501 19991125
PRAI RU 1999-124501 19991125
AB RU 2156087 C UPAB: 20010213

NOVELTY - Biologically active additive contains lithium, potassium, magnesium, iron, zinc, copper, manganese, nickel, boron, cobalt, molybdenum, vanadium, fluorine, iodine, nicotinamide, nicotinic acid, thiamine, riboflavin, calcium pantothenate, pyridoxine, cyanocobalamin, **calcium** pangamate, sodium **ascorbate**, tocopherol, folic acid, retinol, ergocalciferol, cholecalciferol, phytomenadione, adenosine triphosphate, glycine, glutamic acid, mexidol, and distilled water.

DETAILED DESCRIPTION - Biologically active additive contains g/l: lithium, 0.005-2.08; potassium, 0.004-0.38; magnesium, 0.001-0.51; iron, 0.001-2.01; zinc, 0.001-1.24; copper, 0.001-0.35; manganese, 0.001-0.41; nickel, 0.001-0.13; boron, 0.001-0.05; cobalt, 0.001-0.04; molybdenum, 0.001-0.11; vanadium, 0.001-0.13; fluorine, 0.001-0.10; iodine, 0.001-0.01; nicotinamide, 0.02-5.00; nicotinic acid, 0.005-0.1; thiamine, 0.004-4.0; riboflavin, 0.003-0.2; calcium pantothenate, 0.001-0.5; pyridoxine, 0.002-0.5; cyanocobalamin, 0.001-0.05; calcium pangamate, 0.004-5.5; sodium ascorbate, 0.006-3.2; tocopherol, 0.003-0.03; folic acid, 0.005-0.03; retinol, 0.004-0.08; ergocalciferol, 0.001-0.02; cholecalciferol, 0.001-0.02; phytomenadione, 0.003-0.05; adenosine triphosphate, 0.003-0.05; glycine, 0.004-0.1; glutamic acid, 0.003-0.1; mexidol, 0.001-0.2 and distilled water up to 1000.0 ml.

USE - Used in food and perfume-cosmetic industries. The additive shows antihypoxic, hypothermic, antioxidant, antibacterial, antiviral properties, decreases intensity of **tumor** cells growth, shows sedative, antidepressive, diuretic, anti-thyreotoxic properties, increases volume rate of coronary circulation, increases volume of vascular plexus and microcapillaries, prevents platelets and erythrocytes aggregation, shows effectiveness in polyarthritis, gout and lithiasis, normalizes metabolism of lipids, proteins and carbohydrates, optimizes metabolism of ethanol and acetaldehyde in body, prevents and attenuates their toxicity, alcohol dependence, results of alcoholism, enhances mental and physical working capacity.

ADVANTAGE - Improved quality and properties, enhanced effectiveness of addition, valuable medicinal and curative properties.
Dwg.0/0

L25 ANSWER 41 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1999-619632 [53] WPIX
CR 1999-152718 [13]
DNC C1999-180807
TI Production of kimchi having an increased Vitamin C content.
DC D13
IN YOO, B W
PA (YOOB-I) YOO B W
CYC 1
PI US 5976584 A 19991102 (199953)* 8
ADT US 5976584 A CIP of US 1997-966162 19971107, US 1999-243475 19990203
FDT US 5976584 A CIP of US 5869116
PRAI US 1999-243475 19990203; US 1997-966162 19971107
AB US 5976584 A UPAB: 19991215
NOVELTY - Preparation of a more balanced quality kimchi product by adding Vitamin C, to reduce the risk of forming carcinogens thought to be contributory to the high stomach **cancer** mortality rate in the Korean population.
DETAILED DESCRIPTION - Kimchi is prepared, by:
(a) preparing a mixture of vegetables and spices;
(b) adding 0.1-2.4wt% of Vitamin C as a dietary supplemental quantity to this; and
(c) fermenting the mixture to form a kimchi exhibiting an increased Vitamin C content.
USE - The process forms a more balanced quality kimchi product, reducing the risk of forming carcinogens thought to be contributory to the high stomach **cancer** mortality rate in the Korean population.
ADVANTAGE - The kimchi product is fortified with Vitamin C, reducing the risk of nitrates and nitroso compounds, and improving its nutritional qualities.
DESCRIPTION OF DRAWING(S) - A flow chart is shown for making the kimchi product.
Dwg.0/1

L25 ANSWER 42 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1999-253119 [21] WPIX
CR 2000-565417 [52]
DNC C1999-073921
TI Administering therapeutic iodine.
DC A96 B06 B07
IN DUAN, Y; HICKEY, J; KESSLER, J; PANICUCCI, R
PA (SYMB-N) SYMBOLLON CORP; (SYMB-N) SYMBOLLON PHARM
CYC 83
PI US 5885592 A 19990323 (199921)* 12
WO 9921567 A1 19990506 (199925) EN
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9911227 A 19990517 (199939)
NO 2000001673 A 20000524 (200036)
EP 1024815 A1 20000809 (200039) EN
R: AT BE CH DE DK ES FI FR GB GR IT LI NL PT SE

BR 9812588 A 20000725 (200043)
CN 1272789 A 20001108 (200114)
KR 2001030861 A 20010416 (200163)
MX 2000003219 A1 20010701 (200236)
AU 750627 B 20020725 (200260)
EP 1024815 B1 20030129 (200309) EN
R: AT BE CH DE DK ES FI FR GB GR IT LI NL PT SE
JP 2003510243 W 20030318 (200321) 41
DE 69811105 E 20030306 (200325)
ES 2191973 T3 20030916 (200368)
RU 2213564 C2 20031010 (200379)
KR 412219 B 20031224 (200426)

ADT US 5885592 A US 1997-960149 19971029; WO 9921567 A1 WO 1998-US22720 19981027; AU 9911227 A AU 1999-11227 19981027; NO 2000001673 A WO 1998-US22720 19981027, NO 2000-1673 20000331; EP 1024815 A1 EP 1998-954002 19981027, WO 1998-US22720 19981027; BR 9812588 A BR 1998-12588 19981027, WO 1998-US22720 19981027; CN 1272789 A CN 1998-809764 19981027; KR 2001030861 A KR 2000-703542 20000331; MX 2000003219 A1 MX 2000-3219 20000331; AU 750627 B AU 1999-11227 19981027; EP 1024815 B1 EP 1998-954002 19981027, WO 1998-US22720 19981027; JP 2003510243 W WO 1998-US22720 19981027, JP 2000-517725 19981027; DE 69811105 E DE 1998-611105 19981027, EP 1998-954002 19981027, WO 1998-US22720 19981027; ES 2191973 T3 EP 1998-954002 19981027; RU 2213564 C2 WO 1998-US22720 19981027, RU 2000-107852 19981027; KR 412219 B WO 1998-US22720 19981027, KR 2000-703542 20000331

FDT AU 9911227 A Based on WO 9921567; EP 1024815 A1 Based on WO 9921567; BR 9812588 A Based on WO 9921567; AU 750627 B Previous Publ. AU 9911227, Based on WO 9921567; EP 1024815 B1 Based on WO 9921567; JP 2003510243 W Based on WO 9921567; DE 69811105 E Based on EP 1024815, Based on WO 9921567; ES 2191973 T3 Based on EP 1024815; RU 2213564 C2 Based on WO 9921567; KR 412219 B Previous Publ. KR 2001030861, Based on WO 9921567

PRAI US 1997-960149 19971029

AB US 5885592 A UPAB: 20040421

NOVELTY - Administering therapeutic iodine for treating a disorder comprises feeding the patient an oxidant for an iodine species and an iodine reductant with at least one of these compounds containing an iodine species which undergoes an oxidation-reduction reaction upon contact with the gastric juices present in the stomach and generates molecular iodine, in vivo.

DETAILED DESCRIPTION - Administering therapeutic iodine for treating a disorder comprises feeding the patient an oxidant for an iodine species and an iodine reductant with at least one of these compounds containing an iodine species which undergoes an oxidation-reduction reaction upon contact with the gastric juices present in the stomach and generates molecular iodine, in vivo, at a ratio of molecular iodine to total iodine above 0.65.

An INDEPENDENT CLAIM is also included for a non-aqueous composition for administering therapeutic iodine to a mammal comprising the oxidant and reductant as described above.

ACTIVITY - Simulated gastric fluid (SGF) was prepared as follows: 2.0 g of sodium chloride was dissolved in 750 ml of distilled water and then 7.0 ml of hydrochloric acid containing 3.2 g of pepsin was added with distilled water to bring the total volume to 1000 ml. Horseradish peroxidase (HRP), which is known to catalyze the formation of iodine in the presence of hydrogen peroxide via the oxidation of iodide, was dissolved in SGF at a concentration of 1.0 mg/ml. The activity of the HRP and its absorbance at 406 nm was monitored over the course of an hour. There was only a 20% decrease in the absorbance at 406 nm indicating that the tertiary structure of HRP was relatively stable in the presence of

SGF. The rate at which horseradish peroxidase catalyzed the formation of iodine was correspondingly reduced at the end of the hour by 33%. Five grams of citric acid and 1 gram of sodium citrate were combined in one liter of water to yield a buffer with a pH of 3.0. A second identical buffer was prepared that contained 10% pig mucin. A mixture of sodium iodide (1 g) and HRP (5 mg) was made, and used as a single reagent. The following reaction was initiated: 500 ml of buffer or 500 ml of 10% mucin was mixed with 1.0 g of the iodide mixture and 1.0 ml of 30% hydrogen peroxide. The concentration of molecular iodine was monitored as a function of time (Gottardi, W., Fresenius Z. Anal. Chemical Volume 314, pp.582-585, 1983). At 8 minutes the buffer control has a molecular iodine concentration of 30.1 ppm; the same reaction in 10% pig mucin has a concentration of molecular iodine of 38.1 ppm. This experiment demonstrates that a HRP can be used to catalyze the oxidation of iodide by hydrogen peroxide in the stomach and can generate molecular iodine in gastric fluid and in the presence of mucin. Additional experiments using Lugol's solution diluted in simulated gastric fluid at various ratios in the presence of 10% mucin did not yield any measurable molecular iodine. This experiments suggests that it may be advantageous to generate molecular iodine in situ in the stomach as opposed to delivering molecular iodine to the stomach.

MECHANISM OF ACTION - None given.

USE - The method is used to treat disorders such as fibrocystic breast syndrome, breast **cancer**, premenstrual syndrome, endometriosis and stomach ulcers.

ADVANTAGE - The chemicals administered are nontoxic.

Dwg.0/1

L25 ANSWER 43 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1991-252364 [34] WPIX
CR 2002-739690 [80]
DNC C1991-109601
TI Dietary multi-vitamin and mineral supplements - comprising bio flavonoid(s), L-glutathione and L-cysteine, etc., used for preventing **cancer** and cardiovascular and immunological disorders.
DC B05 D13
IN DELUCA, D L; SLAGA, T J; SPARKS, W S
PA (TEXA) UNIV TEXAS SYSTEM; (LIFE-N) LIFESCIENCE CORP; (TEXA) UNIV TEXAS
CYC 31
PI WO 9111117 A 19910808 (199134)*
RW: AT BE CH DE DK ES FR GB GR IT LU NL OA SE
W: AT AU BB BR CA CH DE DK ES FI GB HU JP KP KR LK LU MC MW NL NO RO SD SE SU
AU 9172414 A 19910821 (199147)
EP 514451 A1 19921125 (199248) EN 69
R: AT BE CH DE DK ES FI FR GB GR IT LI LU MC NL SE
BR 9105986 A 19921110 (199250)
JP 05505935 W 19930902 (199340) 69
AU 646840 B 19940310 (199415)
WO 9111117 A3 19910919 (199508)
EP 514451 B1 19970115 (199708) EN 32
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69124223 E 19970227 (199714)
ADT EP 514451 A1 EP 1991-904156 19910204, WO 1991-US719 19910204; BR 9105986 A BR 1991-5986 19910204, WO 1991-US719 19910204; JP 05505935 W JP 1991-504510 19910204, WO 1991-US719 19910204; AU 646840 B AU 1991-72414 19910204; WO 9111117 A3 WO 1991-US719 19910204; EP 514451 B1 EP 1991-904156 19910204, WO 1991-US719 19910204; DE 69124223 E DE 1991-624223 19910204, EP 1991-904156 19910204, WO 1991-US719 19910204

FDT EP 514451 A1 Based on WO 9111117; BR 9105986 A Based on WO 9111117; JP 05505935 W Based on WO 9111117; AU 646840 B Previous Publ. AU 9172414, Based on WO 9111117; EP 514451 B1 Based on WO 9111117; DE 69124223 E Based on EP 514451, Based on WO 9111117
PRAI US 1990-475641 19900205
AB WO 9111117 A UPAB: 20021216
Daily dietary multivitamin and mineral supplement comprises bioflavonoids, L-glutathione (reduced), L-cysteine, potassium sorbate/sorbic acid, butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, sodium benzoate, taurine, D,L-methionine, L-glutamine, SOD and catalase (pref. in concentrate), and opt. vitamin A, B-carotene, vitamin E, **Ca ascorbate**, Cu, Zn, Mn, Se, omega-3 fish oil, inositol, para-aminobenzoic acid, folic acid, vitamin B1, vitamin B2, niacinamide, vitamin B6, vitamin B12, vitamin D3, biotion, Ca pantothenate, vitamin K1, Ca, I, K, Fe, Mg, Cr, Mo, V, Si and B.
Also claimed are other supplements including a supplement including 10-300 mg of butylated hydroxytoluene and a supplement including 10-300 mg of butylated hydroxyanisole.
USE/ADVANTAGE - Used in oral sustanined release tablets for preventing **cancer**. The supplements are also used for preventing cardiovascular and immunological disorders and for increasing longevity.

L25 ANSWER 44 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 1987-322808 [46] WPIX
DNC C1987-137584
TI Calcium supplement beverage opt. also containing magnesium and potassium - contains ascorbate, aspartate and/or orotate, and produces no gastric upset or stomach bloating.
DC D13
PA (CLAR-I) CLARK G H; (NUTR-N) NUTRITION TECH INC
CYC 13
PI EP 246177 A 19871119 (198746)* EN 19
R: AT BE CH DE ES FR GB GR IT LI NL SE
US 4738856 A 19880419 (198818) 16
ADT EP 246177 A EP 1987-630087 19870514; US 4738856 A US 1986-863157 19860514
PRAI US 1985-733088 19850513; US 1986-863157 19860514
AB EP 246177 A UPAB: 19930922
A sodium-free beverage comprises, per ca. 354 ml, (i) 0.5-50.0 meq. Ca ions supplied by **Ca ascorbate** and **Ca** aspartate and/or Ca orotate, and (ii) 1.0-50.0 g sweetener from fructose, sterioside, Raubidicide A and/or aspartame; provided that the beverage solution contains no Na ions except those present in minor amts. of flavouring agents, preservatives or other minor additives. A beverage is also claimed as above also containing 0.5-500 meq. Mg ions supplied by Mg aspartate and/or orotate and pref. also 1.0-10.0 meq K cpd. from the aspartate and/or orotate. Dry mixts. and concentrates for the beverages are also claimed.
USE/ADVANTAGE - Useful as a Ca, Ca/Mg or Ca/Mg/K supplement. The beverage supplies a rapidly and highly absorbate source of Ca which does not cause gastric upset and stomach bloating, and also reduces blood pressure and accelerates the conversion of blood alcohol to inactive forms. The Mg augments blood pressure reduction, suppresses colon **cancer** and may help to prevent the formation of Ca oxolate kidney stones. In female, Mg and K may aid the reduction in premenstrual tension and menstrual cramps. The beverages may also increase cardiac tolerance in cases of anoxia.
0/0

L25 ANSWER 45 OF 45 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1987-215272 [31] WPIX
CR 1989-078565 [11]; 1990-185609 [24]; 1991-132572 [18]; 1992-032631 [04]; 1995-161580 [21]
DNC C1987-090337
TI Emulsion containing brominated per-fluorocarbon and emulsifier - useful for transporting oxygen to animal tissues and as contrast enhancement agents.
DC A96 B01 B05 P31
IN LONG, D M
PA (ALLI-N) ALLIANCE PHARM CORP; (FLUO-N) FLUOROMED PHARM; (LONG-I) LONG D M
CYC 19
PI EP 231070 A 19870805 (198731)* EN 10
R: AT BE CH DE ES FR GB IT LI LU NL SE
AU 8767516 A 19870716 (198735)
NO 8700130 A 19870810 (198737)
ZA 8700252 A 19871009 (198751)
JP 01139526 A 19890601 (198928)
US 4865836 A 19890912 (198946)
CA 1279011 C 19910115 (199109)
US 5080885 A 19920114 (199206)
NO 173214 B 19930809 (199337)
US 5393513 A 19950228 (199514) 6
EP 231070 B1 19980610 (199827) EN
R: AT BE CH DE ES FR GB IT LI LU NL SE
DE 3752194 G 19980716 (199834)
ES 2120400 T3 19981101 (199851)
IE 81097 B 20000308 (200028)
ADT EP 231070 A EP 1987-300248 19870113; ZA 8700252 A ZA 1987-252 19870114; JP 01139526 A JP 1987-5201 19870114; US 5080885 A US 1989-387947 19890824; NO 173214 B NO 1987-130 19870113; US 5393513 A Cont of US 1986-818690 19860114, Cont of US 1989-387947 19890824, Cont of US 1991-811026 19911219, US 1993-100664 19930730; EP 231070 B1 EP 1987-300248 19870113; DE 3752194 G DE 1987-3752194 19870113, EP 1987-300248 19870113; ES 2120400 T3 EP 1987-300248 19870113; IE 81097 B IE 1987-92 19870114
FDT NO 173214 B Previous Publ. NO 8700130; US 5393513 A Cont of US 4865836, Cont of US 5080885; DE 3752194 G Based on EP 231070; ES 2120400 T3 Based on EP 231070
PRAI US 1986-818690 19860114; JP 1987-5201 19870114;
US 1989-387947 19890824; US 1991-811026 19911219;
US 1993-100664 19930730
AB EP 231070 A UPAB: 20000613
(1) Emulsion capable of carrying O2 to animal tissues within an animal body comprises an aqueous phase, a brominated perfluorocarbon (I) and a minor amount of an emulsifying agent (II) in combination with a biocompatible quantity of cholesterol, steroid hormone and/or tocopherol.

(2) Emulsion capable of carrying O2 to animal tissues in an animal body comprises an aqueous phase, (I) and a minor amount of (II). In the non-frozen state after heat sterilisation 95% of the emulsified (I) exists as particles less than 400 nm with a mean dia. less than 150nm, especially after storage for over 1 month. The emulsion may contain a steroid hormone, cholesterol, tocopherol, phospholipid, anionic surfactant, polyoxyethylene- polyoxypropylene copolymer, and the emulsifying agent may be a fluorinated surfactant. The steroid hormone is especially a fluorinated cpd., e.g. with a 6alpha-F or 9alpha-F. An antioxidant, e.g. a tocopherol, **ascorbic** acid or **Ca ascorbate**, may be present.

USE/ADVANTAGE - The emulsions are useful as non-toxic O2 transport and contrast enhancement agents. They are stable can be sterilised and can be used internally and intravenously even after sterilisation and storage for 1 month or more, the size characteristics are maintained.The particle

size is sufficiently small for O2 transport in the cerebrospinal system, eye and tracheobronchial passages etc. as well as in the blood stream.

In an example, an emulsion containing 25 weight% perfluoro-octyl bromide, 4 weight% lecithin, 0.04 weight% L-alkpha-tocopherol, 2.21 weight% glycerol, 0.012 weight% Na2HPO4, 0.057 weight% NaHPO4 and an aqueous phase was prepared It was successfully used for exchange transfusions in female rats.

Dwg.0/0